Lucent Technologies
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Stinger®

Reference

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Contents

About This Reference

What is in this reference

This manual provides an alphabetic reference to all the Stinger profiles, parameters, and commands, and details the settings and options you can specify.

Note This manual describes the full set of features for Stinger units running the current True Access™ Operating System (TAOS) software version. Some features might not be available with earlier versions or specialty loads of the software.

Warning Before installing your Stinger unit, be sure to read the safety instructions in the *Edge Access and Broadband Access Safety and Compliance Guide*. For information specific to your unit, see the "Safety-Related Electrical, Physical, and Environmental Information" appendix in the *Getting Started Guide* for your Stinger unit.

What you should know

This reference is intended for the person who configures and maintains a Stinger unit. To use it effectively, you must have a basic understanding of Stinger security and configuration and be familiar with authentication servers and networking concepts.

Documentation conventions

Following are the special characters and typographical conventions used in this manual:

Convention	Meaning
`Monospace text`	Represents text that appears on your computer's screen, or that can appear on your computer's screen.
`Boldface monospace text`	Represents characters that you enter exactly as shown (unless the characters are also in ***`italics`***—see *Italics*, following). If you can enter the characters but are not specifically instructed to, they do not appear in boldface.
Italics	Represent variable information. Do not enter the words themselves in the command. Enter the information they represent. In ordinary text, italics are used for titles of publications, for some terms that would otherwise be in quotation marks, and to show emphasis.

Convention	Meaning
[ ]	Indicate an optional argument you might add to a command. To include such an argument, type only the information inside the brackets. Do not type the brackets unless they appear in boldface.
|	Separates command choices that are mutually exclusive.
>	Separates levels of profiles, subprofiles, and parameters in a hierarchical menu when the path to a menu item is referred to in text.
:	Separates levels of profiles, subprofiles, and parameters in a pathname displayed in the command-line interface or referred to in text.
Key1+Key2	Represents a combination keystroke. To enter a combination keystroke, press the first key and hold it down while you press one or more other keys. Release all the keys at the same time. (For example, Ctrl+H means hold down the Control key and press the H key.)
Press Enter	Means press the Enter, or Return, key or its equivalent on your computer.
Note:	Introduces important additional information.
Caution:	Warns that a failure to follow the recommended procedure can result in loss of data or damage to equipment.
Warning:	Warns that a failure to take appropriate safety precautions can result in physical injury.

Stinger documentation set

The Stinger documentation set consists of the following manuals, which can be found at `http://www.lucent.com/support` and `http://www.lucentdocs.com/ins`.

- **Read me first:**
  - *Edge Access and Broadband Access Safety and Compliance Guide*. Contains important safety instructions and country-specific information that you must read before installing a Stinger unit.
  - *TAOS Command-Line Interface Guide*. Introduces the TAOS command-line environment and shows you how to use the command-line interface effectively. This guide describes keyboard shortcuts and introduces commands, security levels, profile structure, and parameter types.
- **Installation and basic configuration:**
  - *Getting Started Guide* for your Stinger platform. Shows how to install your Stinger chassis and hardware. This guide also shows you how to use the command-line interface to configure and verify IP access and basic access security on the unit, and how to configure Stinger control module redundancy on units that support it.

  - Module guides. For each Stinger line interface module (LIM), trunk module, or other type of module, an individual guide describes the module's features and provides instructions for configuring the module and verifying its status.

- **Configuration:**
  - *Stinger ATM Configuration Guide*. Describes how to integrate the Stinger unit into the ATM and Digital Subscriber Line (DSL) access infrastructure. The guide explains how to configure PVCs, and shows how to use standard ATM features such as quality of service (QoS), connection admission control (CAC), and subtending.
  - *Stinger IP2000 Configuration Guide*. For Stinger systems with the IP2000 control module, this guide describes how to integrate the system into the IP infrastructure. Topics include IP-routed switch-through ATM PVCs and RFC 1483 PVCs that terminate on the IP2000, IEEE 802.1Q VLAN, and forwarding multicast video transmissions on DSL interfaces.
  - *Stinger Private Network-to-Network Interface (PNNI) Supplement*. For the optional PNNI software, this guide provides quick-start instructions for configuring PNNI and soft PVCs (SPVCs), and describes the related profiles and commands.
  - *Stinger SNMP Management of the ATM Stack Supplement.* Describes SNMP management of ATM ports, interfaces, and connections on a Stinger unit to provide guidelines for configuring and managing ATM circuits through any SNMP management utility.
  - *Stinger T1000 Module Routing and Tunneling Supplement.* For the optional T1000 module, this guide describes how to configure the Layer 3 routing and virtual private network (VPN) capabilities.
- **RADIUS:** *TAOS RADIUS Guide and Reference*. Describes how to set up a unit to use the Remote Authentication Dial-In User Service (RADIUS) server, and contains a complete reference to RADIUS attributes.
- **Administration and troubleshooting:** *Stinger Administration Guide*. Describes how to administer the Stinger unit and manage its operations. Each chapter focuses on a particular aspect of Stinger administration and operations. The chapters describe tools for system management, network management, and Simple Network Management Protocol (SNMP) management.
- **Reference**:
  - *Stinger Reference* (this manual). An alphabetic reference to Stinger profiles, parameters, and commands.
  - *TAOS Glossary*. Defines terms used in documentation for Stinger units.

Stinger Command Reference

1

The information contained here is designed for quick reference. All commands are listed alphabetically.

?

Description Displays a list of all available commands, or help text about a specific command. A list of all available commands also shows the permission level required for the use of each command.

Permission level `user`

Usage `? [-a ] | [`*command-name*`]`

Command element	Description
`–a`	List all commands. (Without this option, the list includes only commands authorized by the current `user` profile.)
command-name	Display information about the specified command.

Example To display a list of commands authorized for your current login:

```
admin> ?
?                               ( user )
alarm                           ( system )
arptable                        ( system )
atmInternalLines                ( system )
atmsig                          ( system )
atmtrunkreset                   ( diagnostic )
AtmTrunks                       ( system )
atmvccstat                      ( system )
atmvcl                          ( system )
atmvcx                          ( system )
atmvpl                          ( system )
atmvpx                          ( system )
auth                            ( user )
briChannels                     ( system )
cat                             ( system )
clear                           ( user )
cleval                          ( system )
clock-source                    ( diagnostic )
clr-history                     ( system )
cltActivate                     ( system )
cltCmd                          ( system )
[More? <ret>=next entry, <sp>=next page, <^C>=abort]
```

To display help text about a command:

```
admin> ? dir
dir                     list all profile types
dir profile-type        list all profiles of the specified type
dir profile-type profile-index list the specified profile instance
```

Dependencies The current security level is set by the current `user` profile and determines which commands are displayed in response to the `?` command. If the current `user` profile does not have sufficient privileges to execute a command, that command is not displayed unless you include the `-a` option. By default, commands that go with the current `user` security level are always displayed. For details, see "auth" on page 1-21.

See Also `help, auth`

A

alarm

Description Enables users to acknowledge, show, and clear alarms.

Permission level `system`

Usage `alarm [ -a | -c | -s | -l] address`

Command element	Description
`-a`	Acknowledge alarms.
`-c`	Clear alarms.
`-s`	Show alarms. Lists the alarms, the address of the device that has the alarm condition, and the status of the alarm.
`-l`	List all alarms that are enabled.
address	Location of the alarm, in `[ shelf slot item ]` format. If *address* is unspecified, then the action is for all alarms on the unit. Default values are used for unspecified items

Example To show all alarms, use the `-s` option.:

```
admin> alarm -s
Type                Address       State
Secondary CM Down      -- -- --      Active
Line Down            {  1 17  1 }    Active
Line Down            {  1 17  2 }    Active
Line Down            {  1 18  1 }    Active
Line Down            {  1 18 2 }     Active
```

Example To list all enabled alarms, use the `-l` option:

```
super> alarm -l
Name                 Address         Event
lalit                {  0  0  0 }    Input Relay Open
satish               {  0  0  0 }    Primary Switchover
success              {  1  1  0 }    Slot State Change
test1                {  1  2  0 }    Line State Change
test2                {  0  0  0 }    Fan Failure
```

See Also `alarm-stat (profile)`, `alarm-state`

apsmgr

Description Provides manual controls for protection groups, and displays names, numbers, and modes of the protection groups active in automatic protection switching (APS).

Permission level `debug`

Usage `apsmgr [-a][-c` *`command`* *`aps-cfg-name`* `[`*`channel`*`] [`*`low-direction`*`]] [-h]`

Command element	Description
`-a`	List all protection groups.
`-c`	Enter a manual switch command.
`-h`	Display help text for this command.
`command`	Specify one of the following: ■ `lop`—(Lockout of protection). Prevents a working channel from being switched to the protection channel. ■ `low`—(Lockout of working). Prevents a protection channel from being switched to the working channel. Similar to the `lop` command, but for the working channel. ■ `clow`—(Clear lockout of working). Clears the `low` command for the assigned line. ■ `fsw`—(Forced switch of working to protection). Switches traffic currently on the working channel to the protection channel. ■ `fsp`—(Force switch of protection to working). Switches the switched traffic from the protection channel back to the working channel. ■ `msw`—(Manual switch of protection to working). A low-priority version of the `fsw` command. ■ `msp`—(Manual switch of working to Protection). A low-priority version of the `fsp` command. ■ `exer`—(EXERcise). Tests the signaling protocol. ■ `clear`—Clears the following commands: `lop`, `fsw`, `fsp`, `msw`, `msp`, `exer`.
`aps-cfg-name`	Specifies the name of the `aps-config` profile—for example, `pg1`.
`channel`	Specifies the channel that the command addresses—for example, `1:17:1`.

Command element	Description
low-direction	Specifies the direction of the working channel to be locked out by the `low` command. Valid values are ■ `low-none`—The working channel is not locked out. ■ `low-recv`—The working channel is locked out in the receive direction only. ■ `low-send`—The working channel is locked out in the send direction only. ■ `low-both`—The working channel is locked out in both the send and receive directions.

Example The following example uses the `-a` option to display all protected groups:

```
admin> apsmgr -a
Name      PG      Work    Prot    RMode    DMode   State
pg1       255     0:0:0   1:18:2  Rever    Uni     Up
```

Field	Description
`Name`	Specifies the name of the protection group, and of the `aps-config` profile.
`PG`	Specifies the number of the protection group.
`Work`	Specifies the address of the working channel.
`Prot`	Specifies the address of the protection (backup) channel.
`RMode`	Specifies whether channel operation is revertive (`Rever`) or nonrevertive (`Non-Rev`).
`DMode`	Specifies whether channel directional mode is unidirectional (`uni`) or bidirectional (`bid`).
`State`	`Up` indicates the protection group is activated and has a valid protection group index; otherwise, `Down` is displayed.

The following example uses the `-c` option with the `clear` command:

```
admin> apsmgr -c clear pg1 1:18:2 none
```

arptable

Description Displays or modifies the Stinger Address Resolution Protocol (ARP) table. Each entry in the ARP table associates a known IP address with a physical address. For remote IP addresses, the Stinger unit can use the ARP table to respond with its own media access control (MAC) address to ARP requests.

Permission level `system`

Usage arptable [-a *IP_address MAC_address*]|[-d *IP_address*]|[-f]

Command element	Description
-a *IP address MAC_address*	Add an ARP table entry for the device with the specified hostname and MAC address.
-d *IP address*	Delete the ARP table entry for the device at the specified hostname.
-f	Clear the ARP table.

Example To display the ARP table:

```
admin> arptable
IP Address    MAC Address          Type IF Retries/Pkts/RefCnt Timestamp
10.103.0.2    00:C0:7B:7A:AC:54    DYN  0  0/0/552             22760
10.103.0.220  00:C0:7B:71:83:02    DYN  0  0/0/2791            22760
10.103.0.1    08:00:20:7B:24:27    DYN  0  0/0/4296            22811
10.103.0.8    00:00:0C:05:B3:A2    DYN  0  0/0/6493            23058
10.103.0.7    00:00:0C:76:58:4E    DYN  0  0/0/6572            23233
10.103.0.49   00:C0:80:89:19:95    DYN  0  0/0/397             23208
```

The ARP table displays the following information:

Field	Description
IP Address	Address contained in ARP requests.
MAC Address	MAC address of the host.
Type	How the address is learned, dynamically (DYN) or by specification of a static route (STAT).
IF	Interface on which the Stinger unit receives the ARP request.
Retries	Number of retries needed to refresh the entry after it times out.
Pkts	Number of packets sent out to refresh the entry after it times out.
RefCnt	Number of times the Stinger unit consults the entry.
Time Stamp	Number of seconds since the system has started up. The Stinger unit updates this field every time an ARP entry is refreshed.

Example To add an ARP table entry for a device with the physical address 00A024A61535 at IP address 10.9.8.20:

```
admin> arptable -a 10.9.8.20 00A024A61535
```

See Also nslookup

atmcacstat

Description Displays statistics about connection admission control (CAC) bandwidth allocation.

Permission level system

Usage atmcacstat - s| b |p | a | r |c *service*

Command element	Description
-s	Display CAC entry summary.
-b *shelf slot*	Display CAC bandwidth allocation for specified slot and shelf.
-p	Display bandwidth allocation for trunk ports.
-a	Display all bandwidth allocation for all active connections.
-c *service*	Display bandwidth allocation for a specified service category. Specify one of the following values with the -c option: ■ 0—Constant bit rate (CBR) ■ 1—Real-time variable bit rate (RTVBR) ■ 2—Non-real-time variable bit rate (NRTVBR) ■ 3—Unspecified bit rate (UBR)

Example To display bandwidth allocation by slot, use the -b option as follows:

```
admin> atmcacstat -b
BANDWIDTH INFORMATION FOR SLOT 1
UP STREAM
    Total B/W Kbits/sec        : 70000
    Guaranteed B/W Kbits/sec   : 42500
    Allocated Guaranteed B/W   : 40000
    Available Guaranteed B/W   : 2500
DN STREAM
    Total B/W Kbits/sec        : 148598
    Guaranteed B/W Kbits/sec   : 148598
    Allocated Guaranteed B/W   : 40000
    Available Guaranteed B/W   : 108598
BANDWIDTH INFORMATION FOR SLOT 2
UP STREAM
    Total B/W Kbits/sec        : 70000
    Guaranteed B/W Kbits/sec   : 42500
    Allocated Guaranteed B/W   : 0
    Available Guaranteed B/W   : 42500
DN STREAM
    Total B/W Kbits/sec        : 148598
    Guaranteed B/W Kbits/sec   : 148598
    Allocated Guaranteed B/W   : 0
    Available Guaranteed B/W   : 148598
```

Example To display the CAC bandwidth allocation for the trunk module ports, use the -p option:

```
admin> atmcacstat -p

CONTROL MODULE TRUNK PORTS B/W CONFIG
PORT {1 17 1} (oc3-atm-trunk-daughter-card) (INACTIVE) (PRIMARY)
Stream  Total BW        Gtd BW  Gtd Allocated   Gtd Available
UP      148598          148598  0               148598
DN      148598          148598  0               148598

PORT {1 17 2} (oc3-atm-trunk-daughter-card) (ACTIVE) (PRIMARY)
Stream  Total BW        Gtd BW  Gtd Allocated   Gtd Available
UP      148598          148598  0               148598
DN      148598          148598  0               14859840644

PORT {1 18 1} (ds3-atm-trunk-daughter-card) (ACTIVE) (PRIMARY)
Stream  Total BW        Gtd BW  Gtd Allocated   Gtd Available
UP      40644           40644   0               40644
DN      40644           40644   0               40644

PORT {1 18 2} (ds3-atm-trunk-daughter-card) (ACTIVE) (PRIMARY)
Stream  Total BW        Gtd BW  Gtd Allocated   Gtd Available
UP      40644           40644   40000           644
DN      40644         40644   40000           644
```

Example To display bandwidth allocation for the CBR service category, use the -c option with the 0 value:

```
admin> atmcacstat -c 0
Quality of Service : CBR
Connection        Stream    Peak Rate      Sustainable Rate      Count
vc-6-2-0-70       UP        15             0                     2
vc-6-2-0-70       DN        15             0                     2
spvc-1-1-1-1.1    UP        10             10                    2
spvc-1-1-1-1.1    DN        10             10                    2
spvc-1-1-1-1.2    UP        10             10                    2
spvc-1-1-1-1.2    DN        10             10                    2
lim-1-1-ckt-5     UP        10             10                    2
lim-1-1-ckt-5     DN        10             10                    2
spvc-1-1-1-1.3    UP        10             10                    2
spvc-1-1-1-1.3    DN        10             10                    2
lim-1-1-ckt-6     UP        10             10                    2
lim-1-1-ckt-6     DN        10             10                    2
spvc-1-1-1-1.4    UP        10             10                    2
spvc-1-1-1-1.4    DN        10             10                    2
lim-1-1-ckt-7     UP        10             10                    2
lim-1-1-ckt-7     DN        10             10                    2
```

```
lim-1-1-ckt-8     UP        10             10                  2
lim-1-1-ckt-8     DN        10             10                  2
```

atmconnectionfailures

Description atmConnectionFailures is a a system command for displaying information about asynchronous transfer mode (ATM) connection failures.

Permission level system

Usage atmConnectionFailures

Example

```
admin> atmConnectionFailures
Profile        Reason
4-2-17-1       NG/VPI/VCI 152/0/35 or 801/202/36 is not valid for VCC
4-3-17-1       NG/VPI 153/0 or 801/203 is not valid for VCC
```

atminternallines

Description Displays statistics for the Asynchronous Transfer Mode (ATM) internal lines.

Permission level system

Usage atminternallines -[a | d | f | u]

Command element	Description
-a	Show all lines.
-d	Show disabled lines.
-f	Show all free lines.
-u	Show in-use lines.

Example To display statistics for all ATM lines:

```
admin> atminternallines -a
All ATM Internal lines:
                          (dvOp     dvUpSt   dvRq    sAdm     nailg)
{    1 17  2 }            (Up       Idle     UP      UP       00802)
```

The data displayed includes the physical address of each line and the following information:

Field	Description
dvOp	The current operational state of the line: ■ Down indicates that the line is in a nonoperational state. ■ Up indicates that the line is in normal operations mode.
dvUpSt	The status of the line in normal operations mode: ■ Idle indicates that no call is on the line. ■ Active indicates that the line is handling a call.
dvRq	The required state of the line: ■ Down indicates that the line is required to be nonoperational. ■ Up indicates that the line is required to be in normal mode.
sAdm	The desired administrative state of the line: ■ Down specifies that the line should terminate all operations and enter the down state. ■ Up specifies that the line should start up in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated to change the Stinger unit to the state desired.
nailg	The dedicated (nailed) group to which the line is assigned.

See Also atmqos, atm-if-config (profile), atm-internal (profile), atm-options

atmqos

Description Displays quality of service (QoS) statistics on Asynchronous Transfer Mode (ATM) connections.

Permission level diagnostic

Usage atmqos -[a|c|d] *qos-name*

Syntax Element	Description
-a	Show QoS statistics on all ATM connections.
-c *qos-name*	Show all connections that use the specified atm-qos profile (the QoS Name in the atmqos -a output).
-d *qos-name*	Display QOS statistics for the specified atm-qos profile (the QoS Name in the atmqos -a output) only.

Example To display QoS statistics on all ATM connections:

```
admin> atmqos -a
```

Td Index	QoS Name	Category	PCR (Cells Per Second)	SCR (Cells Per Second)
1	default	UBR	0	-
2	default-ctl	NRT_VBR	37	37
3	default-rcc	NRT_VBR	905	452
392	ATMQOS392	UBR	96000	-
416	ATMQOS416	RT_VBR	1000	1000

Label	Description
Td Index	Traffic descriptor index.
QoS Name	Name assigned to the atm-qos profile.
Category	Quality of service (QoS).
PCR	Peak cell rate in number of cells per second.
SCR	Sustainable cell rate in number of cells per second.

Example Examples using the -c and -d options follow:

```
admin> atmqos -c atmqos416
vc-11-1-0-35
Total Number Of Connections : 1
admin> atmqos -d atmqos416
Traffic Descriptor    : 416
Traffic Type          : NO_CLP_SCR
PCR(Cells Per Second) : 1000
SCR                   : 1000
MBS                   : 5
QOS Class             : 0
ATM Service Category  : RT_VBR
```

See Also atminternallines, atmtrunks, atmvccstat,imagroups, imalines

atmsig

Description Displays signaling statistics for an Asynchronous Transfer Mode (ATM) connection.

Permission level system

Usage `atmsig [[-i interface]|[-c interface]|-p| shelf slot port]]`

Command element	Description
`-i interface`	Show ATM signaling statistics by interface.
`-p shelf slot port`	Show ATM signaling statistics by shelf, slot and port.
`-c interface`	Clear ATM signaling statistics by interface.

Example To display ATM signaling statistics for interface 11:

```
admin> atmsig -i 11
Physical Address = { 1 17 1 }
Interface = 11
SSCOP Connections Events = 0
SSCOP Errored PDUs = 0
Received Call Setup Attempts = 0
Transmitted Call Setup Attempts = 7
Received Unavailable Routes = 0
Transmitted Unavailable Routes = 0
Received Unavailable Resources = 0
Transmitted Unavailable Resources = 0
Received Called Party Rejects = 0
Transmitted Called Party Rejects = 0
Received Msg Errors = 0
Transmitted Msg Errors = 0
```

See Also `atmtrunks, atmvccstat`

atmtrunkmgr

Description Indicates the status of connections for Asynchronous Transfer Mode (ATM) trunk modules and their connections.

Permission level `system`

Usage `atmtrunkmgr [-t |-g connection-profile-name nailed-group ]`

Command element	Description
`-t`	Toggle debug level from 0 through 4. Each entry of the `atmtrunkmgr -t` command adds 1 to the debug level. After level 4 is reached, the level is reset to 0.
`-g connection-profile nailed-group`	Display status of dedicated (nailed) groups. If the code is 1, there is an active nailed group to connect to. If the interface is not operational, the return code is 0 (zero).

Example The following example commands switch debug levels from 1 to 2:

```
admin> atmtrunkmgr -t
current atmtrunkmgr debug level =  1
admin> atmtrunkmgr -t
current atmtrunkmgr debug level =  2
```

The following example queries a connection named ckt with nailed group 801:

```
admin> atmtrunkmgr -g  ckt  801
return from atmTrunkDevGetChansByNGAndProf chan= 1.
```

See Also atmtrunkreset, atmtrunks, atmvcl, atmvcx, atmvpl

atmtrunkreset

Description Resets the unit's trunk modules.

Permission level diagnostic

Usage atmtrunkreset [-17|-18]

Command element	Description
No options	Display the options for this command.
-17	Reset trunk module 1.
-18	Reset trunk module 2.

See Also atmtrunks

atmtrunks

Description Indicates the status of the Asynchronous Transfer Mode (ATM) trunk modules on a Stinger unit.

Permission level system

Usage atmtrunks [-a | -c [*slot* [*port*]] | -d | -f | -s | -u]

Command element	Description
-a	Show all ATM trunks.
-c [*slot* [*port*]]	Reset trunk statistics for OC3-ATM and DS3-ATM trunk modules. ■ When you use the *slot* option, the unit resets trunk statistics for the specified slot. ■ When you use the *port* option with the *slot* option, the unit resets trunk statistics for the specified port. ■ When you do not use any options, the unit resets trunk statistics for all OC3-ATM and DS3-ATM trunk modules.

Command element	Description
-d	Show disabled trunks.
-f	Show all free trunks.
-s	Show trunk port redundancy operations.
-u	Show in-use trunks.

Example To display the status of all ATM trunk modules:

```
admin> atmtrunks -a

All OC3 ATM trunks:
OC3 Lines                m(dvOp  dvUpSt  dvRq    sAdm   nailg)
Line    {    1 17  1 } (Down    Idle    UP      UP     00801)
Line    {    1 17  2 } (Up      Idle    UP      UP     00802)

All DS3 ATM trunks:
DS3 Lines(               dvOp    dvUpSt  dvRq    sAdm   nailg)
Line    {    1 18  1 } (Up      Idle    UP      UP     00851)
Line    {    1 18  2 } (Down    Idle    UP      UP     00852)

All E3 ATM trunks:
E3 Lines               (dvOp   dvUpSt  dvRq    sAdm    nailg)
```

Example To clear trunk statistics for all trunks:

```
admin> atmtrunks -c
Clearing ATM Trunk Statistics for All Trunks
```

Example To clear trunk statistics for a specific slot:

```
admin> atmtrunks -c 17
Clearing ATM Trunk Statistics for Slot 17
```

Example To clear statistics for a specific port on a trunk module:

```
admin> atmtrunks -c 17 1
Clearing ATM Trunk Statistics for Slot 17 port 1
```

See Also atmtrunkmgr, atmvccstat

atmvccstat

Description Displays the ATMVCC status window, which shows active Asynchronous Transfer Mode (ATM) virtual channel connections (VCCs) in the following format:

slot/port/virtual path identifier (VPI)/virtual channel identifier (VCI)

The command also displays the receive (Rx) and transmit (Tx) cell counts for ATM VCCs.

Permission level system

Usage atmvccstat

Example To display the ATMVCC status window:

```
admin> atmvccstat

 2 Connections                          x Status
 0002 17-1-48                           x Serial number: 10048257
 Version: 9.0-126e0
 0001 17-1-47                           x
                                        x Rx Pkt:          16906
                                        x Tx Pkt:          4488
                                        x    Col:                5
                                        x
 06/14/2024          02:49:15 Up: 0     days,      00:39:00
 17/ 2/ 0/                    Rx:125      Tx:322
 17/ 1/ 0/                    Rx:401      Tx:117
 17/ 2/ 0/                    Rx:54       Tx:32
```

See Also atmtrunks, atmvcx

atmvcl

Description Displays Asynchronous Transfer Mode (ATM) virtual channel links (VCLs).

Permission level system

Usage atmvcl [-c | -a | -sh *shelf* | -s *shelf slot* | -p *shelf slot port* | -d *shelf slot port vpi vci*]

Command element	Description
-c	Show a count of the different types of calls. The system displays the number of terminating permanent virtual circuits (PVCs), PVC segments without cross-connections (created by SNMP), and PVC segments with cross-connections in a Stinger unit. This option can be used with the -a (default), -s, or -p options.
-a	Show all ATM VCLs.
-sh *shelf*	Show ATM VCLs by shelf.
-s *shelf slot*	Show ATM VCLs by slot.
-p *shelf slot port*	Show ATM VCLs by slot and port.
-d *shelf slot port vpi vci*	Show detailed ATM VCL info.

Command element	Description
|grep *argument*	Searches for the value argument. See the grep command.

Example To show a count of different types of calls:

```
admin> atmvcl -c
Totals:              Up      Down
  PVC XConnect       1576     768
  PVC Terminate       152      48
  PVC Legs Only         0       4
  SVC In              591       0
  SVC Out             399       0
  SPVC Initiator      192       0
  SPVC Target         384       0
  Invalid               0
```

Example To show all VCLs:

```
admin> atmvcl -a
 Intf Shelf  Slot  Port   Vpi    Vci    XConnID  Kind  OStatus
   11     1    17     1     0    900          3   pvc       up
   11     1    17     1     0    902          2   pvc       up
   11     1    17     1     0    999          6   pvc       up
   11     1    17     1     0   1000          1   pvc       up
   11     1    17     1     0   1001          4   pvc       up
   11     1    17     1     0   1002          5   pvc       up
   61     1     1     1     0     35          6   pvc       up
   62     1     1     2     0     35          4   pvc       up
   63     1     1     3     0     35          5   pvc       up
  311     2     1     1     0     35          1   pvc       up
  318     2     1     8     0     35          2   pvc       up
  319     2     1     9     0     35          3   pvc       up

  Totals:              Up      Down
  PVC XConnect         12       0
  PVC Terminate         0       0
  PVC Legs Only         0       0
  SVC In                0       0
  SVC Out               0       0
  SPVC Initiator        0       0
  SPVC Target           0       0
  Invalid               0
```

Example To show all VCLs on remote shelf 2:

```
admin> atmvcl -sh 2
 Intf Shelf  Slot  Port   Vpi    Vci    XConnID  Kind  OStatus
  311     2     1     1     0     35          1   pvc       up
  318     2     1     8     0     35          2   pvc       up
  319     2     1     9     0     35          3   pvc       up
...
```

Example To show the VCLs on slot 1 of remote shelf 2:

```
admin> atmvcl -s 2 1
 Intf Shelf  Slot  Port   Vpi    Vci    XConnID  Kind  OStatus
  311     2     1     1     0     35          1   pvc       up
  318     2     1     8     0     35          2   pvc       up
  319     2     1     9     0     35          3   pvc       up
...
```

Example To show the VCLs in VPI 0 and VCI 35 on port 9 of slot 1 on remote shelf 2:

```
admin> atmvcl -d 2 1 9 0 35
PA = { 2 1 9 }, physIF = 283, nextIf = 319
Physical Address = { 2 1 9 }
Interface = 319
VCC Endpoint = no
Vpi = 0
Vci = 35
Oper Status = up
Rx Traffic Descr Index = 1
Tx Traffic Descr Index = 1
Conn Kind = pvc
Cast Type = p2p
Cross Connect ID = 3
```

Example To show only VCLs that include the value 41:

```
admin> atmvcl -a | grep 41
Intf   Shelf    Slot  Port  Vpi   Vci   XConnID    Kind       OStatus
116    2        6     1      0     41    23        spvcI      up
120    2        6     3      0     41    0         pvc        down
<grep> Found 2 line(s) matching search criteria
Totals:            Up   Down
PVC                2     5
SVC In             0     0
SVC Out            13    0
SPVC Initiator     13    0
SPVC Target        0     0
Invalid            0
```

See Also atmtrunkreset, atmvcx, atmvpl, atmvpx, grep

atmvcx

Description Displays Asynchronous Transfer Mode (ATM) virtual channel cross-connects. A cross-connect receives a cell stream on one interface and transmits it on another.

Permission level system

Usage `atmvcx [-a | -sh shelf | -s shelf slot | -p shelf slot port]`

Command element	Description
`-a`	Show all ATM virtual channel cross-connects.
`-sh shelf`	Show ATM virtual channel cross-connects by shelf.
`-s shelf slot`	Show ATM virtual channel cross-connects by slot.
`-p shelf slot port`	Show ATM virtual channel cross-connects by slot and port.

Example To display information about all virtual channel cross-connects on slot 1 of remote shelf 2:

```
admin> atmvcx -s 2 1
                        Low                                    High
Profile      Kind Intf|Sh|Sl|Port|VPI|VCI|Oper  Intf|Sh|Sl|Port|VPI|VCI|Oper
   Permanent VC X-Connects:
pvc-2-1-1      pvc  11   1  17 1    0   1005 up   311  2  1  1    0   35   up
pvc-2-1-8      pvc  11   1  17 1    0   902  up   318  2  1  8    0   35   up
pvc-2-1-9      pvc  11   1  17 1    0   900  up   319  2  1  9    0   35   up
```

Field	Indicates
`Profile`	Name of the profile in which the ATM circuit is configured.
`Kind`	Call control type.
`Intf`	ATM interface index.
`Sh`	Shelf on which a virtual channel link (VCL) of the cross-connect is established. ■ `Low` refers to the ATM interface that has a numerically lower interface index value than the other ATM interface identified in the cross-connect. ■ `High` refers to the ATM interface with the numerically higher interface index value.
`Sl`	Slot on the specified shelf on which a virtual channel link (VCL) of the cross-connect is established. ■ `Low` refers to the ATM interface that has a numerically lower interface index value than the other ATM interface identified in the cross-connect. ■ `High` refers to the ATM interface with the numerically higher interface index value.
`Port`	Port of the specified slot on which a VCL of the cross-connect is established. ■ `Low` refers to the ATM interface that has a numerically lower interface index value than the other ATM interface identified in the cross-connect. ■ `High` refers to the ATM interface with the numerically higher interface index value.
`VPI`	Virtual path identifier (VPI) assigned to the VCL.
`VCI`	Virtual channel identifier (VCI) assigned to the VCL.

Field	Indicates
OStatus	Current operational status of the cross-connect.

See Also atmtrunkreset, atmvcl, atmvpl, atmvpx

atmvpl

Description Displays statistics about the Asynchronous Transfer Mode (ATM) virtual path links (VPLs).

Permission level system

Usage atmvpl [-a | -sh *shelf* | -s *shelf slot* | -p *shelf slot port* | -d *shelf slot port vpi*]

Command element	Description
-a	Show all ATM VPLs.
-sh *shelf*	Show ATM VPLs by shelf.
-s *shelf slot*	Show ATM VPLs by slot.
-p *shelf slot port*	Show ATM VPLs by slot and port.
-d *shelf slot port vpi*	Show detailed ATM VPL info.

Example To display all ATM VPLs:

```
admin> atmvpl -a
Intf   Shelf  Slot   Port   Vpi   XConnID   Kind   OStatus
15     1      18     1      10    1         pvc    up
16     1      18     2      20    1         pvc    up
...
```

Example To display the ATM VPLs in slot 18:

```
admin> atmvpl -s 18
Intf   Shelf  Slot   Port   Vpi   XConnID   Kind   OStatus
15     1      18     1      10    1         pvc    up
16     1      18     2      20    1         pvc    up
...
```

Example To display the ATM VPLs in shelf 2, slot 18 for port 1, VPI 20:

```
admin> atmvpl -d 2 18 1 20
Physical Address = { 2 18 1 }
Interface = 16
Vpi = 20
Oper Status = up
Rx Traffic Descr Index = 1
Tx Traffic Descr Index = 1
Conn Kind = pvc
Cast Type = p2p
Cross Connect ID = 1
```

See Also atmvcl, atmvcx, atmvpx

atmvpx

Description Displays Asynchronous Transfer Mode (ATM) virtual path cross-connects. A cross-connect receives a cell stream on one interface and transmits it on another.

Usage `atmvpx [ -a | -sh shelf | -s shelf slot | -p shelf slot port ]`

Command element	Description
`-a`	Show all ATM virtual path cross-connects.
`-sh shelf`	Show ATM virtual path cross-connects by shelf.
`-s shelf slot`	Show ATM virtual path cross-connects by slot.
`-p shelf slot port`	Show ATM virtual path cross-connects by slot and port.

Example To display all information about virtual path cross-connects on slot 1 on remote shelf 2:

```
admin> atmvpx -s 2 1
                        Low                              High
Profile        Kind Intf/ Sh/Sl/Port/ VPI/Oper Intf/ Sh/Sl/Port/ VPI/Oper
pvc-vp-2-1-5   pvc    11   1 17    1   11 down  255   2  1    5   15 down
```

Field	Indicates
`Profile`	Name of the profile in which the ATM circuit is configured.
`Kind`	Call control type.
`Intf`	ATM interface index.
`Sh`	Shelf on which a virtual channel link (VCL) of the cross-connect is established. ■ `Low` refers to the ATM interface that has a numerically lower interface index value than the other ATM interface identified in the cross-connect. `High` refers to the ATM interface with the numerically higher interface index value.
`Sl`	Slot on the specified shelf on which a virtual channel link (VCL) of the cross-connect is established. ■ `Low` refers to the ATM interface that has a numerically lower interface index value than the other ATM interface identified in the cross-connect. ■ `High` refers to the ATM interface with the numerically higher interface index value.

Field	Indicates
Port	Port of the specified slot on which a VCL of the cross-connect is established. ■ Low refers to the ATM interface that has a numerically lower interface index value than the other ATM interface identified in the cross-connect. ■ High refers to the ATM interface with the numerically higher interface index value.
VPI	Virtual path identifier (VPI) assigned to the VCL.
VCI	Virtual channel identifier (VCI) assigned to the VCL.
OStatus	Current operational status of the cross-connect.

See Also atmvcl, atmvcx, atmvpl

auth

Description Authenticates your current login by applying a specified user profile. Use this command to increase or decrease the permissions of the current login. For information about permission levels in user profiles, see the description of the user profile.

Permission level user

Usage auth *user-name*

Command element	Description
user-name	Authenticate the specified user profile.

Example To log in as Joe:

```
admin> auth joe
Password:
```

If you supply the proper password for the user profile you have specified, the Stinger unit enables the privileges in that profile and then displays the system prompt again. The user profile can specify its own system prompt, which is a useful way to indicate certain permission levels. For example:

```
admin> auth admin
Password:
```

If you supply the wrong password at the prompt, the following message appears:

```
Login incorrect

User:
```

Enter the username again to display the Password prompt.

See Also whoami, ?

B

brichannels

Description Displays statistics for Basic Rate Interface (BRI) channels.

Permission level system

Usage briChannels [-a | -d | -c | -i]

Command element	Description
-a	Show all available channels.
-d	Show disabled channels.
-c	Show all possible channels.
-i	Show in-use channels.

Example To display all available BRI channels:

```
admin> brichannels -a
BRI channels available for use:
                    (dvOp  dvUpSt  dvRq  sAdm nailg)
```

See Also idsl-bandwidth

C

caleashow

Description Displays information about all Communications Assistance for Law Enforcement Act (CALEA) leaf connections and their associated root connections.

Permission level system

Usage caleashow

Example To display information about all CALEA connections:

```
admin> caleashow
Calea Connection  Root Connection  This Side         Other Side
----------------  --------------  ---------------   -----------------
calea1            root1           {18/1 /0  /67   } {18/1 /0  /68   }
calea2            root1                             {18/1 /0  /67   }
```

Field	Displays
Calea Connection	Name of the CALEA leaf connection profile.
Root Connection	Name of the root connection profile associated with the CALEA leaf connection.

Field	Displays
`This Side`	Interface, virtual path identifier (VPI), and virtual channel identifier (VCI) specified in the `atm-options` subprofile of the root `connection` profile. If this field is empty, the virtual channel connection (VCC) is not being intercepted by the CALEA connection.
`Other Side`	Interface, virtual path identifier (VPI), and virtual channel identifier (VCI) specified in the `atm-connect-options` subprofile of the root `connection` profile. If this field is empty, the VCC is not being intercepted by the CALEA connection.

cat

Description Prints a file residing on a PCMCIA flash memory card to the screen to help you verify the contents of a saved configuration file.

Permission level `system`

Usage `cat [`*`socket`*`[ /`*`pathName`*`]]`

Command element	Description
socket	The number of the flash card slot—for example, 1.
pathname	The directory and the filename on the flash card. Normally, the file contains a saved configuration.

Example admin> **`cat 1/config/asavecfg.txt`**

Dependencies The flash card must formatted.

See Also `ls, format, mkdir, mv, rm, save`

changepasswd

Description The `changepasswd` command enables a user to change their password from the terminal session.

Permission level `user`

Usage `changepasswd`

Dependencies If password validation is enabled for the user's account (the `enforce-password-check` parameter in the `user` profile is set to yes), the new password must be at least 8 characters long, containing at least two numbers and four alphabetical characters.

chassisdesc

Description Displays the name of the platform that is operating.

Permission level `user`

Usage `chassisdesc`

Example To display the platform name:
```
admin> chassisdesc
Lucent Stinger-10
```

clear

Description Clears the command-line interface screen or the terminal session screen. The system prompt appears at the top row of the command-line interface screen, or the top row of the VT100 window used in the terminal session display.

Permission level `user`

Usage `clear [-r]`

Command element	Description
`-r`	Reset the terminal session's terminal display attributes.

See Also `screen`

cleval

Description Shows whether the call logging 30-day evaluation license is granted.

Permission level `system`

Usage `cleval`

Example admin> **cleval**

```
This machine is already licensed for Network Management and it is capable of
emitting call logging records
```

clock-source

Description Displays the current clock-source settings for the system. If a line is specified as the master clock source, it provides the source of timing information for synchronous connections. The clock allows the sending device and the receiving device to determine where one block of data ends and the next begins.

If multiple lines specify that they are eligible to be the clock source, you can assign clock-source priority among multiple lines. In the output of the `clock-source` command, the value 1 signifies the highest priority.

Permission level `diagnostic`

Usage clock-source

Example The clock-source command on the control module shows the master clock's module line number:

```
admin> clock-source
Master line: 1
Source List:
        Source: line 1 Available*       priority: 2
        Source: line 3 Available        priority: 2
```

On the modules, the clock-source command uses one-base indexes for the module's lines. For example, to open a session with a DS3-ATM trunk module and display its clock-source settings:

```
admin> open 1 1

ds3-1/2> clock-source
Master line: 1
Source List:
        Source: line 1 Available*       priority: 2
        Source: line 3 Available        priority: 2
```

Following are examples of log messages generated for clock-source transitions:

```
LOG notice, Shelf 1, Controller, Time: 19:44:39--
 Master clock source changed to slot-1/8 line 1
LOG notice, Shelf 1, Controller, Time: 10:34:56--
 Master clock source changed to local oscillator
```

Dependencies The clock-source command lists only currently eligible local clock sources. Sources with Layer 2 up, which are preferred, are marked with an asterisk. In addition, a message is logged whenever the system clock source changes. You must first execute the open command to open a session with the module.

See Also open, clock-priority

clr-history

Description Clears the fatal-error history log.

Permission level system

Usage clr-history [-f]

Command element	Descriptions
-f	Forces the clear operation without requiring verification. Use this option if entering only clr-history does not clear the fatal-history log.

Example To clear the fatal-error history log:

```
admin> clr-history
```

See Also fatal-history

cltactivate

Description Enables a copper loop test (CLT).

Permission level `system`

Usage `cltactivate [ -s remote_shelf ] slot port [cltslot [mode [terminal [loop]]]]`

Command element	Description
`-s remote_shelf`	On hosted Stinger systems, identifies the remote shelf on which to run the copper loop test. The command is entered from the host Stinger unit.
slot	Slot number of the LIM containing the copper loop to be tested.
port	Port number of the copper loop to be tested.
cltslot	Slot number of the copper loop test (CLT) module or path selector module (PSM) running the test.
mode	Connection configuration of the copper loop. The default value, `bridged`, specifies that the copper loop is connected to the test head and the corresponding port of the spare LIM. Specify `looking-out` to connect the copper loop only to the test head.
terminal	Connection point of the copper loop. Specify one of the following values: ■ `internal-tester-terminal`—Copper loop is connected to the internal test head of the CLT module. If you specify no argument, the system takes this default value. ■ `external-tester-terminal`—Copper loop is connected to the external test terminals of the CLT module or PSM. ■ `auxiliary-tester-terminal`—Copper loop is connected to the auxiliary test terminals of the CLT module or PSM.
loop	Copper loop number of the T1 or E1 port. This parameter applies only to copper loops connected to T1 or E1 LIMs, and is ignored for all other LIMs. 1—Transmit copper loop. 2—Receive copper loop.

Note For a detailed discussion of this command and all its parameters, see the *Stinger Copper Loop Test (CLT) Module Guide*.

See Also `cltactivate external-loop, cltdeactivate, cltcmd`

cltactivate external-loop

Description Sets a copper loop test (CLT) module to external-loop access mode. The CLT slot is detected automatically and the access mode is set to `looking-out`.

Permission level `system`

Usage `cltactivate [ -s remote_shelf ] external-loop`

See Also `cltactivate, cltdeactivate, cltcmd`

cltcmd

Description Runs a copper loop test (CLT).

Permission level `system`

Note For a detailed discussion of this command and all its parameters, see the *Stinger Copper Loop Test (CLT) Module Guide*.

See Also `cltactivate`

cltdeactivate

Description Disables a copper loop test (CLT).

Permission level `system`

Usage `cltdeactivate [ -s remote_shelf ] [cltSlot]`

Note For a detailed discussion of this command and all its parameters, see the *Stinger Copper Loop Test (CLT) Module Guide*.

See Also `cltactivate`

cmmodemshowcountries

Description Displays a list of the countries supported by the modem installed in a revision 2 control module.

Permission level `system`

Usage `cmmodemshowcountries`

Example To display a list of the countries supported by a modem:

```
admin> cmmodemshowcountries
The country codes supported by this modem are:
0, Japan
9, Australia
a, Austria
f, Belgium
16, Brazil
26, China
31, Denmark
3c, Finland
```

```
3d, France
42, Germany
46, Greece
53, India
57, Ireland
59, Italy
61, Korea
6c, Malaysia
73, Mexico
7b, Netherlands
82, Norway
8a, Poland
8b, Portugal
9c, Singapore
9f, South Africa
a0, Spain
a5, Sweden
a6, Switzerland
b4, United Kingdom
b5, United States
fd, unknown
fe, Taiwan
```

cmmodemshowcurrentcountry

Description Displays the country code that is currently configured for a modem.

Permission level `debug`

Usage `cmmodemshowcurrentcountry`

Example To display the country code currently configured for a modem:

```
admin> cmmodemshowcurrentcountry
The country code programmed is b5, United States
```

connection

Description Specifies that the upper left portion of the status window displays connection status information. If the status window is not already displayed, this command opens it with the connection status information displayed.

Permission level `system`

Usage `connection`

Example To open a window with connection status information displayed:

```
admin> connection
```

Press the Escape key to display a prompt below the status window

See Also `clear, list, log, screen, status, view`

D

date

Description Displays or sets the Stinger system date and time. The date and time are stored in the `timedate` profile.

Permission level `update`

Usage `date`

Example admin> **`date`**

```
Wed Mar  7 16:17:41 2001
```

Dependencies You can set the Stinger system date and time in the `timedate` profile.

See Also `TIMEDATE`

debug

Description Enables or disables diagnostic output.

Permission level `diagnostic`

Usage `debug on | off`

Command element	Description
`on`	Enables diagnostic output.
`off`	Disables diagnostic output.

Example To enable diagnostic output:

```
admin> debug on
Diagnostic output enabled
admin> FRMAIN: Setting timer DCE
FRMAIN: time 88121200, mkstatus type 1, seq (026,025)
```

See Also `auth`

degen-tone

Description Stops multiport tone testing on the ports of a line interface module (LIM) in the designated slot of a Stinger unit.

Permission level `system`

Usage `degen-tone` *`shelf slot`*

Command element	Description
`shelf`	Shelf of the LIM whose ports are being tested.

Command element	Description
slot	Number of a slot in a Stinger unit.

Example To stop multiport tone testing on a LIM in shelf 1, slot 5:

```
admin> degen-tone 1 5
```

See Also gen-tone

deisolate

Description Stops galvanic isolation testing on the ports of a line interface module (LIM) in the designated slot of a Stinger unit.

Permission level system

Usage deisolate *shelf slot*

Command element	Description
shelf	Shelf of the LIM whose ports are being tested.
slot	Number of a slot in a Stinger unit.

Example To stop galvanic isolation testing on a LIM in shelf 1, slot 5:

```
admin> deisolate 1 5
```

See Also isolate

delete

Description Permanently deletes a profile from local storage. Any flash memory space that was used by the profile becomes available to the system.

Permission level update

Usage delete [-f] *profile-type* [*profile-index*]

Command element	Description
-f	Delete without prompting for confirmation.
profile-type	Type of profile, as listed by the dir command.
profile-index	The index of the specified profile type. Not all profile types require an index.

Example To delete the connection profile previously created for Tom Lynch:

```
admin> delete conn tlynch
Delete profile CONNECTION /tlynch? [y/n] y
CONNECTION /tlynch deleted
```

See Also `get, new, read`

device

Description Initiates a state change in a specified device. The device is specified by its interface address. This command is typically used to administratively put the device in an UP or DOWN state.

Permission level `diagnostic`

Usage `device -d|-t|-u|-? interface_address`

Command element	Description
`-d`	Put the specified device in a DOWN state.
`-u`	Put the specified device in an UP state.
`interface_address`	Interface address of the device, specified as shelf, slot, item number, and logical item number.

Example To administratively disconnect device 24 in slot 3 on shelf 1:

```
admin> device -d {{1 3 24} 0}
```

See Also `show, slot`

dir

Description Lists profiles. With no options, the `dir` command lists all profile types supported by the Stinger unit. It can also be used to list all profiles of a certain type, or to list file-system information about a specific profile.

Permission level `system`

Usage `dir [profile-type [profile-index]]`

Command element	Description
`profile-type`	List all the profiles of the specified type.
`profile-index`	Display information about the specified profile.

Example To list all profile types, enter the `dir` command with no variables:

```
admin> dir
ADMIN-STATE-PERM-IF   SNMP Permanent Interface Admin State
ADMIN-STATE-PHYS-IF   SNMP Physical Interface Admin State
AL-DMT-STAT           Dmt Alcatel adsl line status
AL-DMT                Alcatel cell dmt adsl line parameters
ANSWER-DEFAULTS       Answer profile
ATMPVC-STAT           ATM PVC State
ATMVCC-STAT           ATM VCC State
BANDWIDTH-ALLOC       Bandwidth allocation for slots for ATM
BANDWIDTH-STATS       Bandwidth statistics for slots for ATM
BASE                  System version and enabled features
CALL-INFO             Active call information
CALL-LOGGING          Call logging
CONNECTION            Connection (WAN) profiles
DEVICE-STATE          Device Operational State
DEVICE-SUMMARY        Device availability summary information
ERROR                 Fatal Error log
ETHER-INFO            Ethernet Interfaces Information
ETHERNET              Ethernet Interfaces Configuration
EXT-TSRV              Remote Terminal Server Config Information
EXTERNAL-AUTH         External authentication info
IP-GLOBAL             Global TCP/IP parameters
IP-INTERFACE          IP interfaces
IP-ROUTE              Static IP routes
LOAD-SELECT           Code images to load
LOG                   System event logging configuration
SDSL                  Sdsl line parameters
SDSL-STAT             Sdsl line status
SERIAL                Serial interfaces
SLOT-INFO             Slot Info profile
SLOT-STATE            Slot Operational State
SLOT-TYPE             Slot Type profile
SNMP                  SNMP configuration
SYSTEM                System-wide basic parameters
TERMINAL-SERVER       Terminal server parameters
TIMEDATE              Current system date and time
TRAP                  SNMP trap destinations
USER                  Administrative user accounts
```

Example To list all `connection` profiles, as well as all RADIUS profiles for dedicated (nailed) connections, specify `conn` as the profile type. For example:

```
admin> dir conn
169  08/31/2002 22:21:07  dallas
195  09/12/2002 10:14:08  chicago
189  11/14/2002 09:34:44  nyc1
177  11/14/2002 11:38:09  nyc2
187  10/22/2002 15:34:53  la
201  10/14/2002 14:29:32  sacto
```

This form of the command is useful for displaying valid profile indexes. The index is in the rightmost field. The listing includes the following information:

- The first field shows the number of bytes that the profile uses.
- The second field shows the date that the profile was last modified.
- The third field shows the time that the profile was last modified.
- The fourth field shows the profile index. If the profile does not have an index, the fourth field contains a period. If only one profile exists, the field displays that profile's name.

Example To list information about a specific profile, include its index on the command line:

```
admin> dir conn dallas
169  08/31/2002 22:21:07  dallas
```

Example To list all profiles types with a given string, use `dir` with the `grep` command:

```
admin> dir | grep -i ima
DS1-ATM            DS1 ATM/IMA line configuration parameters
IMA-GROUP-STAT     IMA group status
IMAGROUP           Inverse Multiplexing for ATM (IMA)group parameters
IMAHW-CONFIG       Inverse Multiplexing for ATM (IMA) HW parameters
LOAD-SELECT        Code images to load
<grep> Found 5 line(s) matching search criteria
```

See Also `list`, `get`, `grep`

dircode

Description Displays the contents of the PCMCIA flash memory card code directory. The flash cards contain code for the modules, run-time control module, and profiles. The system configuration is stored in the onboard nonvolatile RAM (NVRAM).

Permission level `system`

Usage `dircode`

The following error messages can appear when you use the `dircode` command:

Error message	Description
`Card N is not formatted for use with this system`	The flash card is blank, corrupted, or formatted for another environment, such as DOS. To use this card, you must issue a `format` command first.
`Card N is temporarily unavailable`	The flash card is currently starting up or is being formatted.
`Card N is unavailable`	The flash card experienced an error and is inaccessible. Verify that the card is inserted properly.

Example

```
admin> dircode
Flash card code directory:
Card 1, format FTL/FAT, capacity 8MB
/current:
shelf-controller    1229934  Mon Jun  10 11:22:16 2002 Version 9.0a0e0
sdsl-atm-card       525661   Mon Jun  10 11:22:46 2002 Version 9.0a0e0
al-dmtadsl-atm-card 620347   Mon Jun  10 11:23:20 2002 Version 9.0a0e0
```

The information displayed by this command includes the card number (1 or 2) and the size of the code directory. For each expansion module installed in the system, it also shows the following information:

- The type of card the load is for
- The size of the code related to the card
- The date the load was copied to the flash card
- The code version

See Also `format, fsck, load`

dmtaldsllines

Description Displays discrete multitone (DMT) Alcatel ADSL line use.

Permission level `system`

Usage `dmtaldsllines [-a| -d| -f | -sh | -sl | -u ]`

Command element	Description
No options	Display the options for this command.
`-a`	Display all DMT Alcatel ADSL lines.
`-d`	Display all disabled DMT Alcatel ADSL lines.
`-f`	Display all free DMT Alcatel ADSL lines.
`-sh` *`shelf`*	Limit the output to lines on the specified shelf.
`-sl` *`shelf slot`*	Limit the output to lines on the specified slot.
`-u`	Display all Asynchronous Transfer Mode (ATM) DMT Alcatel ADSL lines in use.

Example To display all DMT Alcatel ADSL lines:

```
admin> dmtaldsllines -a
All DMT Alcatel ADSL lines:
                                (dvOp   dvUpSt  dvRq    sAdm    nailg)
  Line    {    1  4  1 }       (Down    Idle    UP      UP     00151)
  Line    {    1  4  2 }       (Down    Idle    UP      UP     00152)
  Line    {    1  4  3 }       (Down    Idle    UP      UP     00153)
  Line    {    1  4  4 }       (Up      Idle    UP      UP     00154)
  Line    {    1  4  5 }       (Down    Idle    UP      UP     00155)
  Line    {    1  4  6 }       (Down    Idle    UP      UP     00156)
  Line    {    1  4  7 }       (Down    Idle    UP      UP     00157)
  Line    {    1  4  8 }       (Down    Idle    UP      UP     00158)
  Line    {    1  4  9 }       (Down    Idle    UP      UP     00159)
  Line    {    1  4 10 }       (Down    Idle    UP      UP     00160)
  Line    {    1  4 11 }       (Down    Idle    UP      UP     00161)
  Line    {     1  4 12 }      (Down    Idle    UP      UP     00162)
```

The data displayed includes the physical address of each line and the following status information:

Field	Description
dvOp	Current operational state of the line: ■ Down indicates that the line is in a nonoperational state. ■ Up indicates that the line is in normal operations mode.
dvUpSt	Status of the line in normal operations mode: ■ Idle indicates that no call is on the line. ■ Active indicates that the line is handling a call.
dvRq	Required state of the line: ■ Down indicates that the line is required to be nonoperational. ■ Up indicates that the line is required to be in normal operations mode.
sAdm	Desired administrative state of the line: ■ Down specifies that the line should terminate all operations and enter the deactivated state. ■ Up specifies that the line should be activated in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated (for example, someone has dialed in) that should change the Stinger unit to the desired state.
nailg	Dedicated (nailed) group to which the line is assigned.

See Also sdsllines

dnstab

Description Displays the fallback Domain Name System (DNS) table, a local DNS host table used only when the regular name lookup fails. This table contains up to eight entries, each including a hostname and a list of the host IP addresses.

Permission level system

Usage dnstab [-s] [*entry number*]

Command element	Description
-s	Show the entire DNS host table.
entry number	Number of an entry in the DNS host table. Use this option to display a specific table entry.

Entering the command with no options displays the usage summary.

Example To display the entire DNS host table:

```
admin> dnstab -s
Local DNS Table: enabled, AutoUpdate: enabled.
Local DNS Table
     Name        IP Address     # Reads  Time of last read
   __________ _____________   _______ __________________
1: "wheelers"    206.65.212.9     *      - ---
2: "foxhound"    1.0.0.1                 - ---
3: ""            -------                 - ---
5: ""            -------                 - ---
6: ""            -------                 - ---
7: ""            -------                 - ---
8: ""            -------                 - ---
```

Field	Description
Local DNS Table	Whether enabled is set to yes in the ip-global:dns-local-table subprofile.
AutoUpdate	Whether auto-update is set to yes in the ip-global:dns-local-table subprofile.
Name	Hostname.
IP Address	IP address. An asterisk (*) indicates that the entry has been automatically updated by a DNS query.
# Reads	Number of accesses since the entry was created.
Time of last read	Time and date the entry was last accessed. If the Simple Network Time Protocol (SNTP) is not in use, the field contains hyphens.

Dependencies For the fallback table to be available, parameters must be configured in the table-config subprofile of the dns-local-table subprofile of the ip-global profile.

dslclstats

Description Displays statistics regarding the number of start, stop, and stream call-logging packets sent from a particular interface.

Permission level `system`

Usage `dslclstats`

This command can be run from any line interface module (LIM) or from the control module. When run from the control module, the command reports the counters for call-logging for trunk cards.

Example admin> **`dslclstats`**

```
DSL CL Start  pkts sent = 7
DSL CL Stream pkts sent = 754
DSL CL Stop   pkts sent = 3
```

dsllines

Description Displays the status of all DSL lines.

Permission level `system`

Usage `dsllines [ -a | -d | -f | -s | -sh | -sl | -u ]`

Command element	Description
`-a`	Show all DSL lines.
`-d`	Show disabled lines.
`-f`	Show all free lines.
`-s`	Show all lines summary.
`-sh` *`shelf`*	Limit the output to lines on the specified shelf.
`-sl` *`shelf slot`*	Limit the output to lines on the specified slot.
`-u`	Show in-use lines.

Example To show all free lines:

```
admin> dsllines -f
Free DSL lines:
                        (dvOp   dvUpSt  dvRq    sAdm    nailg   xDSL)
Line    {    1  4  3 } (Down   Idle    UP      UP      00153)
Line    {    1  4  4 } (Up     Idle    UP      UP      00154)
```

The data displayed includes the physical address of each line and the following status information:

Field	Description
`dvOp`	Current operational state of the line: ■ `Down` indicates that the line is in a nonoperational state. ■ `Up` indicates that the line is in normal operations mode.

Field	Description
dvUpSt	Status of the line in normal operations mode: ■ Idle indicates that no call is on the line. ■ Active indicates that the line is handling a call.
dvRq	Required state of the line: ■ Down indicates that the line is required to be nonoperational. ■ Up indicates that the line is required to be in normal operations mode.
sAdm	Desired administrative state of the line: ■ Down specifies that the line should terminate all operations and enter the deactivated state. ■ Up specifies that the line should be activated in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up, or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated (for example, someone has dialed in) that should change the Stinger unit to the desired state.
nailg	Dedicated (nailed) group to which the line is assigned.
xDSL	Type of DSL line.

Example To show a summary of all lines:

```
admin> dsllines -s
Summary of All DSL lines:
        Shelf  Slot Lim-Type Total-Port  Enabled-Port  Default-port
        1      1    SDSL     48          48            0
        1      2    SDSL     48          48            0
        1      3    HDSL2    32          32            0
```

The data displayed includes the following fields:

Field	Description
Shelf	Shelf number of the LIM.
Slot	Slot number of the LIM.
Lim-Type	Type of LIM.
Total-Port	Total number of ports for this LIM.
Enabled-Port	Number of ports that are enabled.
Default-port	Number of ports with default settings.

dumpcachestat

Description Displays statistics about cache usage.

Permission level system

Usage dumpcachestat

Example

```
admin> dumpcachestat
Cache Updates  0    total 22
Cache Attempts 0    total 44
Cache Hits     0    total 22
Add count 321 Del count 216
Array Add count 0 Del count 0
Number of flash devices created 1 deleted 0
```

See Also ipcache

E

ether-display

Description Displays the contents of Ethernet packets.

Permission level diagnostic

Usage ether-display *port# n*

Command element	Description
port#	The Ethernet port on which the packets are received or transmitted. If you specify 0 (zero) for the port number, the Stinger unit displays all ports on the shelf.
n	The number of octets to display in each Ethernet packet.

Example To display Ethernet packet contents for port 0 in 12-octet sizes:

```
admin> ether-display 0 12
ETHER XMIT: 12 of 60 octets
10799E40: 08 00 20 75 80 6b 00 c0  7b 5e ad 3c             .. u.k.. {^.<
ETHER RECV: 12 of 60 octets
1077D980: 00 c0 7b 5e ad 3c 00 80  c7 2f 27 ca             ..{^.<.. ./'.
ETHER XMIT: 12 of 509 octets
1079A480: 00 80 c7 2f 27 ca 00 c0  7b 5e ad 3c             .../'... {^.<
ETHER XMIT: 12 of 330 octets
1079AAC0: 08 00 20 75 80 6b 00 c0  7b 5e ad 3c            .. u.k.. {^.<
ETHER RECV: 12 of 60 octets
1077DFD0: 00 c0 7b 5e ad 3c 08 00  20 75 80 6b             ..{^.<..  u.k
ETHER XMIT: 12 of 451 octets
```

```
1079B100: 08 00 20 75 80 6b 00 c0  7b 5e ad 3c            .. u.k.. {^.<
ETHER XMIT: 12 of 723 octets
1079B740: 00 20 af f8 0f 1d 00 c0  7b 5e ad 3c            . ...... {^.<
ETHER XMIT: 12 of 84 octets
1078F580: 08 00 20 75 80 6b 00 c0  7b 5e ad 3c            .. u.k.. {^.<
ETHER RECV: 12 of 60 octets
1077E620: 00 c0 7b 5e ad 3c 00 20  af f8 0f 1d            ..{^.<.  ....
ETHER XMIT: 12 of 238 octets
1078FBC0: 00 20 af f8 0f 1d 00 c0  7b 5e ad 3c            . ...... {^.<
ETHER XMIT: 12 of 373 octets
10790200: 00 20 af f8 0f 1d 00 c0  7b 5e ad 3c            . ...... {^.<
ETHER RECV: 12 of 60 octets
1077EC70: 00 c0 7b 5e ad 3c 00 20  af f8 0f 1d            ..{^.<.  ....
ETHER XMIT: 12 of 267 octets
10790840: 00 20 af f8 0f 1d 00 c0  7b 5e ad 3c            . ...... {^.<
```

Example To stop displaying the Ethernet statistics, enter:

```
admin> ether-display 0 0
```

Note You must set `debug` to `on` for `ether-display` to have any effect

F

fatal-history

Description Displays the Stinger fatal-error log. Every time a fatal error occurs on a Stinger system, it is logged to the fatal-error history log. Available flash memory space limits the number of entries in the log. You can clear the log with the `clr-history` command.

Permission level `system`

Usage `fatal-history`

Example To display the fatal-history log:

```
admin> fatal-history
OPERATOR RESET:  Index:  99  Revision: 1.3Ap6 Shelf 1
        Date: 09/20/2002.       Time: 16:56:01
        Reset from unknown, user profile super.
OPERATOR RESET:  Index:  99  Revision: 1.3Ap6  Shelf 9
        Date: 09/24/2002.       Time: 11:56:10
        Reset from unknown, user profile super.
```

See Also `clr-history`

filtcache

Description Displays the number of times a cached RADIUS filter profile was used, and enables you to flush all filter cache buffers.

Permission level user

Usage filtcache -s [*filtername*]| -f [-f]

Command element	Description
-s [*filtername*]	If *filtername* is not specified, the command displays statistics for all cached filters. If it is specified, the command displays statistics only for the specified filter.
-f [-f]	Flush all cached filters. The second -f flag specifies that all filters are flushed without a prompt for confirmation being displayed.

Example The following command displays how many times a filter named myfilter has been used:

```
admin> filtcache -s myfilter
Filter Name  Time Created    Exp After(min)  Use Cnt Refresh   Cache

_____________________________________________________________________
myfilter     18:44:30      10              2      No
```

The following command flushes all cached filters:

```
admin> filtcache -f
Flush all cached filter profiles? [y/n] y
All 3 cached RADIUS filter profiles flushed.
```

The following command displays how many times all cached RADIUS filters have been used:

```
admin> filtcache -s
Filter Name      Time Created    Exp After(min)  Use Cnt Refresh Cache

_____________________________________________________________________
myfilter         20:01:50        1440            3       Yes
filter-b         21:03:34        10              2       No
filter-c         21:10:32        8               14      Yes
```

See Also filterdisp

filterdisp

Description Enables you to display information about filters in use for active sessions.

Permission level system

Usage filterdisp [*sessNum*]

Command element	Description
No options	Display all active sessions and their filter names.
sessNum	Display filter details for the specified session.

Example *Displaying all active sessions*

To display all active sessions and their filter names:

```
admin> filterdisp
ID   Username    Src Route-Filter Data-Filter Call-Filter TOS-Filter
-------------------------------------------------------------------
010  dialin-23   ext              a234567890123
016  dialin-4    ext              a234567890124
017  edleung     ext              a234567890125
018  jwebster    ext              a234567890126
019  pyan        loc              datfilt2    callfilt4   tostestfilt
020  guest       ext              a234567890123
021  pvc2        loc  route-pvc                gen_callfilt
022  pvc4        loc                          gen_callfilt
023  pvc5        loc
<end user list>  9 active user(s)
```

The output displays a session ID number, a username, and an indication of whether the session was authenticated locally. Sessions authenticated by local profiles display the filter names specified in the `connection` profile. Sessions authenticated by RADIUS display the filter names specified in the RADIUS profile. The fields in the command output provide the following information:

Field	Specifies
`ID`	Identification number for the session.
`Username`	Name of the authenticated profile.
`Src`	Whether the profile is downloaded through RADIUS (`ext`) or recognized as a local profile (`loc`).
`Route-Filter`	Whether a route filter has been applied to the session. For sessions authenticated locally, the name of the filter is supplied. For externally authenticated sessions, `<filters present>` indicates that a route filter has been applied. If blank, no route filter applies.
`Data-Filter`	Whether a data filter has been applied to the session. For sessions authenticated locally, the name of the filter is supplied. For externally authenticated sessions, `<filters present>` indicates that a data filter has been applied. If blank, no data filter applies.
`Call-Filter`	Whether a call filter has been applied to the session. For sessions authenticated locally, the name of the filter is supplied. For externally authenticated sessions, `<filters present>` indicates that a call filter has been applied. If blank, no call filter applies.
`TOS-Filter`	Whether a type of service (TOS) filter has been applied to the session. For sessions authenticated locally, the name of the filter is supplied. For externally authenticated sessions, the label `<filters present>` indicates that a TOS filter has been applied. If blank, no TOS filter applies.

Example To display the filter details for a particular session, specify the session ID as an argument on the `filterdisp` command line. (To obtain the session ID number, use the `filterdisp` command without an argument.) If you specify an invalid session number, the command returns an error. For example:

```
admin> filterdisp 3
Error: Invalid user session ID
```

Example The following sample output shows that no filters are applied to the sessions:

```
admin> filterdisp 23
Hostname:       pvc5
No associated filters

admin> filterdisp 10
Hostname:       dialin-4
No associated external filters
```

Example In the following sample output, call filters have been applied to a session that was authenticated locally:

```
admin> filterdisp 22
Hostname:         pvc4
Call Filter
Direction: In

Forward = no
Type = Generic Filter
offset = 0
len = 0
more = no
comp-neq = no
mask = 00:00:00:00:00:00:00:00:00:00:00:00
value = 00:00:00:00:00:00:00:00:00:00:00:00

Call Filter
Direction: Out

Forward = yes
Type = Generic Filter
offset = 0
len = 0
more = no
comp-neq = no
mask = 00:00:00:00:00:00:00:00:00:00:00:00
value = 00:00:00:00:00:00:00:00:00:00:00:00
```

Example The following sample output shows filters applied to an externally authenticated session:

```
admin> filterdisp 17
Hostname:       edleung
searching for external filters...
Externally obtained filters exist

Data Filter
Direction: Out

Forward = yes
Type = IP Filter
protocol = 0
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
destination-address-mask = 0.0.0.0
destination-address = 0.0.0.0
Src-Port-Cmp = none
source-port = 0
Dst-Port-Cmp = none
dest-port = 0
tcp-estab = no

Forward = yes
Type = Generic Filter
offset = 12
len = 2
more = no
comp-neq = no
dummyForPadding = 0
mask = ff:ff:00:00:00:00:00:00:00:00:00:00
value = 08:06:00:00:00:00:00:00:00:00:00:00
```

Dependencies The `filterdisp` command does not support virtual routers (VRouters) for externally authenticated sessions.

See Also `filtcache`

format

Description Formats a PCMCIA flash memory card, preparing it for use in a Stinger unit. You must format the card before you can use the `load` command to load code.

Permission level `code`

Usage `format [ -f | -o | -e |-b | -x] [`*`device`*`]`

Command element	Description
`-f`	Force format without asking for verification.
`-o`	Format in version 2 old format.
`-e`	Erase the entire flash card.
`-b`	Format the flash card and reserve space for boot region.

Command element	Description
`-x`	For ATA flash cards only, format without a Master Boot Record.
`-e -b`	Erase the boot region of a flash card.
device	Name of the flash card to be formatted. The following are valid names: ■ `[flash-card-]1` ■ `[flash-card-]2` Device names can be abbreviated as 1 and 2.

The following error messages can appear when you use the `format` command

Error message	Description
`error: flash card N is not present`	No flash card is detected in the specified slot (1 or 2).
`error: flash card N is unavailable`	The flash card in the specified slot is already being formatted, is just starting up, or is in an error condition.
`error: flash card N is write-protected`	The write-protect switch is set on the card in the specified slot (1 or 2).
`error: flash card N is currently in use`	One or more images on the flash card are currently in use (being read by a line interface or trunk module in LOAD state or being written as part of a code download).
`LOG error, Shelf N, Controller-1, Time: hh:mm:ss--ITP-1/12: _getPartData: _file_read(fd=5, ii->fragCnt=2925) FAILED`	The flash card in the specified slot has not finished booting and as a result the format command has failed.

Example To format a PCMCIA flash memory card after inserting it in the second (righthand) slot in the control module:

```
admin> format flash-card-2
format will erase existing card 2 data; confirm: [y/n] y
```

See Also `dircode, fsck, load`

fsck

Description Audits inconsistent file conditions (which can include file contents) on a PCMCIA flash memory card.

For each file found, the command displays the type-name, type-number, decimal and hexadecimal byte counts, date written to flash memory, and whether blocks that were in use were allocated to a file. Any detected errors are reported. No errors are fixed.

Permission level `code`

Usage `fsck [-b -c -v] device`

Command element	Significance
`-b`	Ignore bad identifiers. Each flash card file system contains two directory blocks: an in-use block and an empty block used for deleting information. Both directory blocks contain an identifier that labels it a directory block. A *candidate* directory block is one that is missing the magic identifier but contains information that can be interpreted as directory-block information. If the `fsck` command finds no valid directory block but does find a candidate directory block, the `-b` option causes the system to ignore the missing identifier and use the candidate directory block anyway. The file system is to be used normally until the next reboot, assuming that the `fsck` command finds no other errors.
`-c`	Do not check file contents. By default, `fsck` checks the file contents for validity, which involves opening and reading every file, checking the file header, verifying the data length and CRC value, and performing other functions. This option causes `fsck` to check only the file-system format.
`-v`	Display verbose messages, including the number of blocks used, a block list, and (unless the `–c` option is specified) information about the files found.
`device`	Name of the flash card to be checked. The following are valid names: ■ `[flash-card-]1` ■ `[flash-card-]2` Device names can be abbreviated as `1` and `2`.

Example To run a file-system check of the card named `flash-card-1`:

```
admin> fsck 1
Volume Stats:
  Block Size: 512 (typical: 512)
  Blocks Per Cluster: 4 (typical: 1, may be powers of 2 up to 16)
  Reserved Blocks: 1 (typical: 1, but may be 0 - hundreds)
  Number of FATs: 2 (must be 2)
  Number of Root Directory Entries: 128 (typically between 32 and 224)
  Total Blocks: 13824
  Media Descriptor: f0 (ignored)

Volume Info calculated from values above:
  Blocks Per Fat: 11
  Fat Start Block: 1
  Root Dir Start Block: 23
  Data Start Block: 31
  Number of Root Dir Blocks: 8
  Number of Clusters: 3448
  FAT Type: Fat12

Cluster Usage
  Usable Clusters: 3446
  Free Clusters: 2284
  Clusters lost during interrupted writes: 0
  Other reserved clusters: 1158
```

See Also `dircode, format, load`

ftp

Description The command interface to the TAOS FTP client consists of a subset of the FTP service commands defined in RFC 959, *File Transfer Protocol (FTP)*. You use these commands to set the FTP file transfer type and working directory, to transfer files, and to otherwise manipulate FTP as you require.

Permission level `update`

Usage `ftp [-s source ip-address] [hostname] [port]`

Command element	Description
`-s source ip-address`	Specify the source filename to transfer and IP address of the FTP server.
hostname	Specify the name of an FTP server.
port	Specify the server's FTP port value if it differs from the default value of 21.

Following are brief descriptions of `open` and the other FTP service commands:

Command element	Description
`ascii`	Sets the file transfer type for ASCII files.
`binary`	Sets the file transfer type so that files containing non-ASCII characters can be transferred correctly.
`bye`	Synonym for `"quit"` . Ends the FTP session and closes any open connections.
`cd [`*`directory`*`]`	Accesses a working directory named *`directory`* on the remote system.
`close`	Closes the connection with the remote system without exiting from FTP.
`debug`	Toggles debug output on and off.
`dir [`*`directory`*`]`	Synonym for `ls`. Displays a listing of *`directory`* on the remote system.
`exit`	Synonym for `quit`. Ends the FTP session and closes any open connections.
`get [`*`remote filename`*`] [`*`local filename`*`]`	Transfers a file named *`remote filename`* from the remote system to the local system. You can provide a remote file's pathname as a valid remote filename. If you do not enter a ***`local filename`*** value, FTP transfers the file to the local current directory (LCD), using the remote filename. If you do not enter either a remote or local filename, you are prompted for both.
`hash`	Toggles the display of # as the progress indicator during file transfer.
`help`	Displays a list of commands recognized by the FTP client.
`lcd [`*`directory`*`]`	Sets the local current directory (LCD) to *`directory`*. If you do not enter a directory, the Stinger unit displays the current LCD to you.
`ls [`*`directory`*`]`	Synonym for `dir`. Displays a listing of *`directory`* on the remote system.
`open [`*`hostname`*`]`	Opens a connection to a remote system named *`hostname`*. If you do not specify a hostname, you are prompted for one.
`put [`*`local filename`*`] [`*`remote filename`*`]`	Transfers a file named *`local filename`* from the local system to the remote system. You can provide a local file's pathname as a valid local filename. If you do not enter a *`remote filename`* value, FTP transfers the file to the remote system's current working directory (CWD) using the local filename. If you do not enter either a local or remote filename, you are prompted for both.
`pwd`	Displays the pathname of the working directory on the remote system.

Command element	Description
`quit`	Synonym for `exit`. Ends the FTP session and closes any open connections.
`set -s` *source ip-address*	Sets options for a connection. You can display the options for the set command by entering `set ?`. In this release, the `set` command can be used only to set the source IP address of a connection using the `-s` option. The system uses the value specified with the `set -s` command instead of the value provided by the `system-ip-addr` parameter in the `ip-global` profile. **Note** If you are using `set` command, the client should not be connected to an FTP server.
`user` [*username*] [*password*]	Initializes a login to the host to which the FTP client is connected. If you do not enter a username or password, you are prompted to do so.

Note The URL interface to the TAOS FTP client is based on the interface defined in RFC 1738, *Uniform Resource Locators (URLs)*. With the TAOS implementation, the colon is replaced with a space after `ftp,` and includes a local directory name. You can use the URLs in file transfer scripts.

Usage `ftp [-s` *source ip-address*`]`
`//`*username*`:`*password*`@`*hostname*`:`*port*`/`*url-path*`/`*filename*`;type=a|i` *local-dir*

Command Element	Description
`-s` *source ip-address*	Specify the source filename to transfer and IP address of the FTP server.
username	Optional username. If the remote server requires a username, the system prompts you to enter one. Be sure to enter a colon (`:`) after any username you enter, and to omit the colon if you omit the username.
password	Optional password. If the remote server requires a password, the system prompts you to enter one. You must first enter a username to specify a password.
hostname	Fully qualified domain name of a network host, or the host's IP address in dotted decimal notation. If you use a domain name, use a fully qualified one as specified in Section 3.5 of RFC 1034, *Domain Names—Concepts and Facilities*, and Section 2.1 of RFC 1123, *Requirements for Internet Hosts—Application and Support*. A domain name is a sequence of domain labels separated by periods (`.`), starting and ending with an alphanumeric character, and optionally containing hyphens (-). In contrast to an IP address, the rightmost label can never start with a number.

Command Element	Description
port	Number of the port, in decimal notation, on an FTP host to which to connect. If you do not enter a port number, *port* defaults to 21. Be sure to enter a colon (`:`) before any port number you enter, and to omit the colon if you omit the port number.
url-path	Path on the remote system of one or more directory names to the file that you want to transfer. The slashes (/) that precede and follow the path are not part of the pathname(s). If you omit the path, be sure to retain both slashes.
filename	Name of the file on the remote host to transfer.
`type=a|i`	Optional file transfer type: ■ Enter `;type=a` to transfer ASCII files. ■ Enter `;type=i` to transfer files containing non-ASCII characters, in binary mode. **Note** If you do not enter a type, the file transfer type defaults to binary mode. Be sure to enter a semicolon (`;`) before `type`, and to omit the semicolon if you do not enter a file transfer type.
local-dir	Optional path of one or more names to the local directory of flash memory where the Stinger unit is to store the transferred file. You can enter a PCMCIA slot number and a directory name (for example, `1/current`). If you enter only a directory name, the unit uses the first slot with a file allocation table (FAT) formatted PCMCIA card. Be sure to include a space before *local-dir*. If you omit *local-dir*, the Stinger unit stores the file in the `root` directory of the first PCMCIA slot that contains a FAT-formatted flash card.

Example The following example shows a File Transfer Protocol connecting to a FTP server, logging in with a name and password, changing the current working directory on the server, changing the local current working directory, switching to binary transfer mode, downloading a binary file, and quitting the application.

```
admin> ftp 111.11.26.12
220 ds2 FTP server (SunOS 5.6) ready.
Name:ddoug
331 Password required for ddoug.
Password:
230 User ddoug logged in.

ftp> cd /tftpboot/ddoug
250 CWD command successful.

ftp> lcd current
Local directory now 1/current

ftp> binary
200 Type set to I.

ftp> get stngrcm.ffs
200 PORT command successful.
150 Binary data connection for stngrcm.ffs
(149.52.26.125,7018) (2258239 bytes).
2258239 bytes recieved in 30 seconds
226 Binary Transfer complete.
ftp> quit
221 Goodbye.
```

Example The following example shows how to connect to an FTP server and specify a source IP address of 1.1.1.1:

```
admin> ftp -s 1.1.1.1 60.60.60.1
220 dsl-snmp FTP server (SunOS 5.6) ready.
Name:mmahendra
331 Password required for mmahendra.
Password:
230 User mmahendra logged in.
```

Example The following example specifies a source IP address of 1.1.1.1:

```
ftp> set -s 1.1.1.1
Source IP Address set to : 1.1.1.1
ftp> open 60.60.60.1
220 dsl-snmp FTP server (SunOS 5.6) ready.
Name:mmahendra
331 Password required for mmahendra.
Password:
230 User mmahendra logged in.
```

Dependencies To use the FTP client capability, your unit must have a FAT-formatted flash memory card in its PCMCIA slot.

The FTP client supports active connections only. In addition, you cannot cancel an FTP download or upload that is already in progress.

G

gen-tone

Description Enables multiport tone tests for a range of line interface module (LIM) ports or a list of individual ports. The tests require that you connect an external test tone generator to the external or auxiliary port of a copper loop test (CLT) module or path selector module (PSM).

Permission level `system`

Usage `gen-tone` *`shelf slot`*
`ext` *`start-port - end-port | p1 [p2. . . .]`*
`| aux` *`start-port - end-port | p1 [p2. . . .]`*

Command element	Description
`shelf`	Shelf of the LIM whose ports are to be tested.
`slot`	Slot in which the LIM is located.
`ext`	Connection to the test tone generator is through the external port of a a CLT module or PSM.
`aux`	Connection to the test tone generator is through the auxiliary port of a CLT module or PSM.
`start-port`	First port of the range to be tested.
`end-port`	Last port of the range to be tested.
`p1` `[`*`p2. . . .`*`]`	List of ports to be tested.

Example To test ports 1 through 10 for a LIM in shelf 1, slot 5 using the auxiliary port on a CLT module or PSM:

```
admin> gen-tone 1 5 aux 1 - 10
```

Example To test ports 3, 4, and 9 for a LIM in shelf 1, slot 5, using the auxiliary port on a CLT module or PSM:

```
admin> gen-tone 1 5 aux 3 4 9
```

Example To test ports 3 and 9 only for a LIM in shelf 1, slot 5, using the external port on a CLT module or PSM:

```
admin> gen-tone 1 5 ext 3 9
```

See Also `degen-tone`

get

Description Displays the contents of a profile or subprofile, but does not make it writable. Only the working profile can be modified. For information about reading a profile into the edit buffer to make it the working profile, see "read" on page 1-151.

The `get` command recognizes the period character (`.`) as shorthand for the working profile (the profile in the edit buffer).

Permission level `system`

Usage `get` *`profile-type`* [*`profile-index`*] [[*`subprofile`*] [*`param-name`* [*`param-index`*]]

Command element	Description
`profile-type`	Type of profile to be displayed, which might require an index as well. A period (.) represents the working profile (the profile in the edit buffer).
`profile-index`	Profile index (the name or address that distinguishes a profile from others of the same type). To see profile indexes, use the `dir` command.
`subprofile`	Subprofile within the specified profile.
`param-name`	Parameter within the specified profile. If the parameter is in a subprofile, you must specify the subprofile name first.
`param-index`	Complex parameters have an index. For example, the `interface-address` parameter contains both the `physical-address` and `logical-item` indexes.

Example *Displaying the contents of a profile*

To display the contents of a `connection` profile called `dallas`:

```
admin> get connection dallas
[in CONNECTION/dallas]
station*=dallas
active=yes
encapsulation-protocol=atm
called-number-type=national
dial-number=85283
clid=""
ip-options={ yes yes 1.1.1.1/8 0.0.0.0/0 7 100 255 no no 0 +
session-options={ "" "" no 120 no-idle 120 "" }
telco-options={ ans-and-orig no off 1 no no 64k-clear 0 "" "" +
answer-options={ }
usrRad-options={ global 0.0.0.0 1646 "" 1 acct-base-10 }
calledNumber=""
```

Example *Displaying the contents of a subprofile*

To display the `ip-options` subprofile in the `connection` profile called `dallas`:

```
admin> get connection dallas ip-options
[in CONNECTION/dallas:ip-options]
ip-routing-enabled=yes
vj-header-prediction=yes
remote-address=0.0.0.0/0
local-address=0.0.0.0/0
routing-metric=7
preference=100
down-preference=255
private-route=no
temporary-route=no
ip-direct=0.0.0.0
rip=routing-off
client-default-gateway=0.0.0.0
if-remote-address=0.0.0.0
tos-options={ no 00 normal input }
source-ip-check=no
```

Example *Displaying the contents of the working profile*

The `get` command, followed by a period (`.`), displays the contents of the current location in the working profile:

```
admin> get .
[in CONNECTION/dallas:ip-options]
ip-routing-enabled=yes
vj-header-prediction=yes
remote-address=0.0.0.0/0
local-address=0.0.0.0/0
routing-metric=7
preference=100
down-preference=255
private-route=no
temporary-route=no
ip-direct=0.0.0.0
rip=routing-off
client-default-gateway=0.0.0.0
if-remote-address=0.0.0.0
tos-options={ no 00 normal input }
source-ip-check=no
```

Example *Displaying a higher context than the current location*

You can add a space and two periods (`..`) to `get .` to display a higher context than the current location in the working profile:

```
admin> get . ..
[in CONNECTION/dallas]
station*=dallas
active=yes
encapsulation-protocol=atm
called-number-type=national
```

```
dial-number=""
clid=""
ip-options={ yes yes 10.122.99.1/24 0.0.0.0/0 7 100 255 no no +
session-options={ "" "" no 120 no-idle 120 "" 0}
telco-options={ ans-and-orig no off 1 no no 56k-restricted 0 +
usrRad-options={ global 0.0.0.0 1646 "" 1 acct-base-10 }
calledNumber=""
framed-only=no
atm-options={ aal5-llc 0 32 }
atm-connect-options={ aal5-llc 0 32 }
```

Example *Displaying a deeper context than the working profile*

To display a deeper context than the current location in the working profile, specify one or more subprofiles after the period:

```
admin> get . ip
[in CONNECTION/dallas:ip-options]
ip-routing-enabled=yes
vj-header-prediction=yes
remote-address=0.0.0.0/0
local-address=0.0.0.0/0
routing-metric=7
preference=100
down-preference=255
private-route=no
temporary-route=no
ip-direct=0.0.0.0
rip=routing-off
client-default-gateway=0.0.0.0
if-remote-address=0.0.0.0
tos-options={ no 00 normal input }
source-ip-check=no
```

Example *Displaying a parameter name or parameter index*

Use the *param-name* argument to display the IP address of an Ethernet interface:

```
admin> get ip-int {{1 c 1}0} ip-address
[in IP-INTERFACE/{ { shelf-1 controller 1 } 0 }:ip-address]
ip-address=10.65.12.224/24
```

Use the *param-name param-index* argument to display a complete physical address:

```
admin> get ip-int {{1 c 1}0} interface-address physical-address
[in IP-INTERFACE/{{shelf-1 controller 1} 0}:interface-address:
physical-address]
shelf=shelf-1
slot=controller
item-number=1
```

See Also `list, read, write`

gmac

Description Provide diagnostics on the Gigabit Ethernet (GigE) driver.

Permission level system

Usage gmac [-v |-i [-u |-d] | -n | -s | -l [-i | -e| -d |-p] –p |-r |-w |-d[-c |-a | -e] | -t |-?]

Command element	Description
-v	Show gmac version.
-i [-u/d]	With no additional option, initialize/reset the GigE port.
-u	Force GigE link up.
-d	Force GigE link down.
-n	Set up network processor to communicate with GMAC.
-s	Set up a SAR channel for communicating with GMAC .
-l [-i/e/d/p]	Loopback.
-i	Port set for internal loopback.
-e	Port set for external loopback.
-d	Port set for no loopback.
-p	Run loopback test for Ethernet power-on self test (POST).
-p	Ping test.
-r	Read a PHY register.
-w	Write to a PHY register.
-d [-c/a/e]	With no additional option, display all statistics.
-c	Clear GMAC statistics.
-a	Display ATM statistics.
-e	Display Ethernet statistics.
-t	Set debug level (0 through 3).
-?	Display a summary of commands.

Example Set up the network processor for communication with the GMAC:

```
admin> gmac -n
NP setup for gmac done.
```

Example Set up a SAR channel for communicating with the GMAC:

```
admin> gmac -s
GMAC: SAR conn. open with vpi = 0, vci = 200
```

Example Display the GMAC version:

```
admin> gmac -v
GMAC version : 0x0b
```

Example Reset the Gigabit Ethernet port:

```
admin> gmac -i
gigE port reset.
```

Example Display Gigabit Ethernet statistics:

```
admin> gmac -d -c
Clearing gmac stats.
admin> ping 201.168.53.122
PING 201.168.53.122 (201.168.53.122):
^C
--- 201.168.53.122 ping statistics ---
6 packets transmitted, 0 packets received
round-trip min/avg/max = 0/0/0 ms
admin> gmac -d
Gigabit Ethernet port statistics :
txOctetsLow     = 384
txOctetsHigh    = 0
txGoodPackets   = 6
txPkt64         = 6
txPkt65127      = 0
txPkt128255     = 0
txPkt256511     = 0
txPkt5121023    = 0
txPkt1024Max    = 0
txPktDefer      = 0
txPktUndSz      = 0
txUnderFlow     = 0
txPfcf  = 0
txPfcc  = 0
txRfcf  = 0
txRfcc  = 0
txOverFlow      = 0
txAlmostFull    = 0

rxOctetsLow     = 20965266
rxOctetsHigh    = 0
rxGoodPackets   = 15393
rxPkt64         = 0
rxPkt65127      = 0
rx128255        = 0
rx256511        = 0
rx5121023       = 0
rx1024Max       = 15393
rxMacType       = 0
rxCrcErrors     = 0
rxUnderSize     = 0
rxOverSize      = 0
rxAlmostFull    = 0
rxOverRun       = 0
rxMulticastPackets      = 15392
rxBroadcastPackets      = 0
```

```
rxJabber        = 0
rxPfc   = 0
rxRfc   = 0
```

gre

Description Displays Generic Routing Encapsulation (GRE) protocol statistics.

Permission level `user`

Usage `gre c | z | k | s`

Command element	Description
`c`	Display GRE counters.
`z`	Clear GRE counters.
`k`	Display the GRE key table.
`s`	Display GRE slot information.

Example To display GRE counters, use the `gre c` command:

```
admin> gre c

Received
  Total packets:      0
  Delivered locally:  0
       to slot/key:   0
       to slot/proto: 0
Transmitted
  Total requests:     0
  Packets sent:       0


PB stats:
  Received packets:   0     Delivered: 0
  Transmitted packets:0


Keys added: 0         Hits:   0
   deleted: 0         Misses: 0


CB msgs rcvd: 11        processed: 14
        sent: 21        generated: 21
```

Example To display the slots for which GRE is enabled, use the `gre s` command:

```
admin> gre s
Master shelf 1
Enabled slots:   1/3    1/13   1/7
```

grep

Description Filters the output of certain TAOS commands to make a specified pattern. The command is modeled on the `grep` command from the UNIX environment and has numerous applications in the TAOS operating system. The number of commands that support the `grep` capability changes as the functionality is integrated into the system. Following is a representative list of commands that currently support the `grep` feature:

```
arptable
briChannels
cadslLines
callroute
dadslLines
dir
ds3AtmLines
filterdisp
help
if-admin
ifmgr
ipcache
list
modem
oc3AtmLines
ospf
swanLines
t1channels
uds3Lines
userstat
vdslchannels
```

Permission level `user`

Usage *command* | grep [-c *expression*|-i *expression*]| -v *expression*]

Command element	Description
| grep	Displays only information that matches the expression pattern.
-c *expression*	Counts occurrences of the expression only. Does not display information.
-i *expression*	Uses pattern matching against the expression that is not case sensitive.
-v *expression*	Displays only information that does not match the expression pattern.

For the *expression* argument, the grep feature supports the following regular expressions, wildcard characters, and patterns:

Regular expression	Description
\ (backslash)	Turns off any special meaning of the following character.
. (period)	Matches any single character in the input string.
* (asterisk)	Matches zero or more occurrences of the previous character.
'' (single quotation marks)	Enclose an expression to be matched.
""(double quotation marks)	Enclose a pattern that contains spaces or other quotation marks.
^ (circumflex)	Specifies the beginning of a line.
$ (dollar sign)	Specifies the end of line.
| (vertical bar)	Specifies a logical OR relationship.
[] (square brackets)	Specifies any one of the characters in a range.
() (parentheses)	Identifies group expressions

To search for a character that is a wildcard, you must precede it with the backslash character, even if the wildcard character is within the boundaries of quotation marks.

The output data from the command is scanned line by line. If the pattern you specify is encountered in the line, that line is displayed. If you use the -c argument, the number of lines found matching the pattern are counted and displayed at the end of the command. Note that the field headers and footers might be omitted from the display if they do not match the pattern. However, error messages are exempt from pattern matching.

Note If you use the grep feature with a command that does not support filtering, the system does not display an error. Instead, the command output is simply not filtered.

Example Following are two uses of the grep command related to virtual links and soft permanent virtual circuits (SPVCs):

```
admin> ? | grep atmv
atmvccstat ( system )
atmvcl ( system )
atmvcx ( system )
atmvpl ( system )
atmvpx ( system )
admin> ? | grep spv
spvcc ( system )
spvcstat ( system )
spvpc ( system )
```

See Also ?, dir

gunzip

Description The gunzip command uncompresses files on the flash card that have been compressed by the gzip command. This command functions in the same way as the UNIX gunzip command, and performs the same function as the gzip command used with the -d option.

Permission level system

Usage gunzip [-options] file

Command element	Description
-V	Toggle verbose mode
-t	Time the compression operation

Example The following example uncompresses and replaces a file named save.conf.gz in the zz subdirectory of flash card number 1. The resulting uncompressed file is named save.conf.

```
admin> gunzip 1/zz/save.conf.gz
```

Dependencies This command can be used only if the allow-system parameter is set to yes in the user profile.

gzip

Description The gzip command compresses files on the flash card. This command functions in the same way as the UNIX gzip command.

Permission level system

Usage gzip [-options] file

Command element	Description
-d	Decompress the specified file(default for 'gunzip')
-1 to -9	Set the compression level (-1 : fastest; -9 : best)
-f	Compress using Z_FILTERED
-h	Compress using Z_HUFFMAN_ONLY
-V	Toggle verbose mode
-t	Time the compression operation

Example The following example compresses and replaces a file named save.conf in the zz subdirectory of flash card number 1 at the best level of compression. The resulting file is named save.conf.gz.

```
admin> gzip -9 1/zz/save.conf
```

Dependencies This command can be used only if the allow-system parameter is set to yes in the user profile.

H

hdsl2lines

Description Displays the port status and dedicated (nailed) group for each HDSL2 port.

Permission level System

Usage hdsl2lines [-a | -d | -f | -u | -sh | -sl | -t]

Command element	Description
-a	Show all HDSL2 lines.
-d	Show disabled lines.
-f	Show all free lines.
-u	Show in-use lines.
-sh *shelf*	Limit the output to lines on the specified shelf.
-sl *shelf slot*	Limit the output to lines on the specified slot.
-t	Toggle debug flag.

Example To display all lines for the first 16 ports on an HDSL2 module in slot 4:

```
admin> hdsl2 -a
All HDSL2 lines:
                (dvOp   dvUpSt   dvRq   sAdm   nailg)
Line { 1 4 1 }  (Down   Idle     DOWN   DOWN   00151)
Line { 1 4 2 }  (Down   Idle     DOWN   DOWN   00152)
Line { 1 4 3 }  (Up     Idle     UP     UP     00153)
Line { 1 4 4 }  (Down   Idle     DOWN   DOWN   00154)
Line { 1 4 5 }  (Down   Idle     DOWN   DOWN   00155)
Line { 1 4 6 }  (Down   Idle     DOWN   DOWN   00156)
Line { 1 4 7 }  (Up     Idle     UP     UP     00157)
Line { 1 4 8 }  (Down   Idle     DOWN   DOWN   00158)
Line { 1 4 9 }  (Up     Idle     UP     UP     00159)
Line { 1 4 10 } (Up     Idle     UP     UP     00160)
Line { 1 4 11 } (Down   Idle     DOWN   DOWN   00161)
Line { 1 4 12 } (Down   Idle     DOWN   DOWN   00162)
Line { 1 4 13 } (Up     Idle     UP     UP     00163)
Line { 1 4 14 } (Down   Idle     DOWN   DOWN   00164)
Line { 1 4 16 }  (Down   Idle     DOWN   DOWN   00166)
```

Field	Description
dvOp	Current operational state of the line: ■ Down indicates that the line is in a nonoperational state. ■ Up indicates that the line is in normal operations mode.

Field	Description
dvUpSt	Status of the line in normal operations mode: ■ Idle indicates that no call is on the line. ■ Active indicates that the line is handling a call.
dvRq	Required state of the line: ■ Down indicates that the line is required to be nonoperational. ■ Up indicates that the line is required to be in normal operations mode.
sAdm	Desired administrative state of the line: ■ Down specifies that the line should terminate all operations and enter the down state. ■ Up specifies that the line should start up in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated that should change the Stinger unit to the state desired.
nailg	Dedicated (nailed) group to which the line is assigned.

help

Description Displays a list of all available commands or help text about a specific command. The question-mark (?) is a shortcut version of this command.

Permission level user

Usage help [-a]|[*command-name*]

Command element	Description
–a	List all commands. (Without this option, the list includes only commands authorized by the current user profile.)
command-name	Display information about the specified command.

Example To display a list of commands authorized for your current login:

```
admin> help
?                               ( user )
arp                             ( system )
auth                            ( user )
clear                           ( user )
clock-source                    ( diagnostic )
clr-history                     ( system )
```

```
connection                    ( system )
date                          ( update )
delete                        ( update )
device                        ( diagnostic )
dir                           ( system )
dircode                       ( system )
ether-display                 ( diagnostic )
fatal-history                 ( system )
format                        ( code )
get                           ( system )
help                          ( user )
if-admin                      ( diagnostic )
line                          ( system )
[More? <ret>=next entry, <sp>=next page, <^C>=abort]
```

Example To display help text about the `dir` command:

```
admin> help dir
dir                     list all profile types
dir profile-type         list all profiles of the specified type
dir profile-type profile-index list the specified profile instance
```

Dependencies The current security level is set by the current `user` profile and determines which commands are displayed in response to this command. If the current `user` profile does not have sufficient privileges to run a command, the command is not displayed unless you specify the `-a` option. By default, commands that go with the current `user` security level are always displayed.

See Also `auth`

history

Description The `history` command displays command logs to the terminal session.

Permission level `user`

Usage `history`

Example Following is a sample output of the `history` command, followed by a description of the fields in the output:

```
admin> history
Date       Time     Source           User             Id Card    Command
11/13/2003 16:31:00 console          admin            01 {01 08} history
11/13/2003 16:30:52 135.17.134.39    user2            03 {01 08} quit
11/13/2003 16:30:49 135.17.134.39    user2            03 {01 08} save c log
11/13/2003 16:30:41 135.17.134.39    user2           03 {01 08} dir cmd-log
11/13/2003 16:30:32 135.17.134.39    user2            03 {01 08} help
11/13/2003 16:30:29 135.17.134.39    user2            03 {01 08} atmcacstat
11/13/2003 16:30:25 135.17.134.39    user2            03 {01 08} show
11/13/2003 16:30:16 135.17.134.39    user1            02 {01 08} quit
11/13/2003 16:30:07 135.17.134.39    user1            02 {01 08} history
11/13/2003 16:29:58 135.17.134.39    user1            02 {01 08} dir
```

Field	Description
Date	Date the command was entered.
Time	Time the command was entered
Source	How the user initiated the session, for example, via telnet or by connecting to the serial port.
User	The user profile associated with the user who entered the command.
Id	User session ID number.
Card	Shelf and slot number from which the command was entered.
Command	Command entered by the user.

I

if-admin

Description Displays information about or specifies the state of a Simple Network Management Protocol (SNMP) interface.

Each device in the system has a unique SNMP interface number assigned to the device when a module is installed. Interface numbers are stored in nonvolatile RAM (NVRAM), which is not affected by system resets. A physical device keeps the same interface number across system resets or power failures.

Permission level diagnostic

Usage if-admin -a | -d *interface*| -l | -u *interface*| -r *interface*

Command element	Description
-a	List available SNMP interface numbers.
-d *interface*	Administratively disconnect a specified SNMP interface
-l	List SNMP interface and device address mappings.
-u *interface*	Administratively turn on a specified SNMP interface.
-r *interface*	Reset an SNMP interface.

Example To display a list of all SNMP interface numbers assigned by the system, specify the -l option:

```
admin> if-admin -l
SNMP-IF   DEVICE ADDRESS
  101   -   { 1 11 32 }
    1   -   { 1 17 1 }
  102   -   { 1 11 33 }
    2   -   { 1 3 1 }
```

```
  103   -   { 1 11 34 }
    3   -   { 1 3 2 }
  104   -   { 1 11 35 }
    4   -   { 1 3 3 }
  105   -   { 1 11 36 }
    5   -   { 1 3 4 }
  106   -   { 1 11 37 }
    6   -   { 1 3 5 }
  107   -   { 1 11 38 }
    7   -   { 1 3 6 }
  108   -   { 1 11 39 }
    8   -   { 1 3 7 }
[More <ret>=next entry, <sp>=next page, <^C>=abort]
```

To turn on SNMP interface number 111:

```
admin> if-admin -u 111
interface 111 state change forced
```

if-trap-admin

Description With the `if-trap-admin` command, you can change the setting of the `desired-trap-trap` parameter for all `admin-state-phys-if` profiles, `admin-state-perm-if` profiles or both `admin-state-phys-if` and `admin-state-perm-if` profiles.

Permission level `update`

Usage `if-trap-admin [ -a | -s | -m ] state`

Command element	Description
`-a`	Change trap settings for all profiles (`ADMIN-STATE-PHYS-IF` and `ADMIN-STATE-PERM-IF`)
`-s`	Change trap settings for `ADMIN-STATE-PHYS-IF` profile
`-m`	Change trap settings for `ADMIN-STATE-PERM-IF` profile
state	Select one of, `system` (the default), `enable`, or `disable`.

Example The following sample commands change the setting of the desired-trap-state for all slots in the system to system-defined:

```
admin> if-trap-admin -a system
Massive desired-trap-state change done
```

igmp

Description Displays multicast information about Internet Group Management Protocol (IGMP) groups and clients.

Permission level `system`

Usage `igmp groups | clients | slots | profile| mbone`

Command element	Description
`clients`	Display multicast clients.
`groups`	Display active multicast group addresses and interfaces.
`slots`	Display multicast enable slots.
`profile`	Display multicast profiles.
`mbone`	Display multicast mbones (backbones).

Note For the following examples, the MBONE interface is on the Gigabit Ethernet port and the clients are on a trunk interface (a remote client), and on ADSL LIM slots 1 and 5.

Example Display multicast clients:

```
admin> igmp client
   IGMP Clients
    Client            Version        RecvCount      CLU    ALU
     1(Mbone)           2                0           0      0
     14                 2                0           0      0
```

The output contains the following fields:

Field	Description
`Client`	Interface ID on which the client resides. The value 0 (zero) represents the Ethernet. Other numbers are WAN interfaces, numbered according to when they became active. The interface labeled Mbone is the interface on which the multicast router resides.
`Version`	IGMP version.
`RecvCount`	Number of IGMP messages received on that interface.
`CLU/ALU`	CLU is current line utilization, and ALU is average line utilization. Both indicate the percentage of bandwidth used across this interface. If bandwidth utilization is high, some IGMP packet types are not forwarded.

Example Display active multicast group addresses and interfaces:

```
admin> igmp group

IGMP Group address Routing Table
Up Time: 0d 0:13:52
Group Address         Members     Expire time      Counts
230.0.0.9             14          00:00:31      0 :: 0 S4
```

```
                    *(Mbone)                    0 :: 0 S4
                    Slot 1:5
                    Slot 1:2
```

The output contains the following fields:

Field	Description
Group address	Multicast address used for the group. An asterisk indicates the IP multicast address being monitored. If a group has no members, the system forwards multicast traffic for the group to the MBONE interface (the default route).
Members	Interface ID of multicast group members.
Expire time	When this membership expires. The system sends out IGMP queries every 60 seconds, so the expiration time is usually renewed. If the expiration time is reached, the system removes the entry from the table. If the field contains periods, this membership never expires. A string of periods means that the default route never times out.
Counts	Number of packets forwarded to the client, the number of packets dropped due to lack of resources, and the state of the membership. The state is displayed for debugging.

Example Display information about slots supporting IGMP clients:

```
admin> igmp slot
   IGMP Client Slots
   Shelf:Slot         Group          SendCount
   1:8                230.0.0.9        0
   1:5                230.0.0.9        0
   1:2                230.0.0.9        0
```

The output contains the following fields:

Field	Description
Shelf:Slot	Shelf and slot card the MBONE connection is on.
Group	Interface number of connection.
SendCount	Number of packets sent across the interface.

Example Display information about multicast service profiles:

```
admin> igmp profile


IGMP Service Profiles

          Service Name               : gold-service
          SNMP Trap                  : Enabled
          Call logging               : Disabled
```

```
Filter Type                : MCAST_FILTER_INCLUSIVE
Filter List                :
       224.255.129.120
       224.225.129.119

Service Name               : bronze-service
SNMP Trap                  : Enabled
Call logging               : Disabled
Filter Type                : MCAST_FILTER_INCLUSIVE
Filter List                :
       224.255.129.119
```

The output contains the following fields:

Field	Description
Service Name	Name of the multicast service profile.
SNMP Trap	Whether the system sends an SNMP trap when a multicast client joins or leaves a multicast group.
Call logging	Whether the system sends a call-logging packet when a multicast client session goes up or down.
Filter Type	Inclusive or exclusive multicast group filtering in the named profile.
Filter List	Multicast group addresses to be filtered.

Example Display information about the current MBONE interface:

```
admin> igmp mbone
   Mbone is currently:
   Slot 1:8 ifNum = 1
```

imagroups

Description Displays the status of any groups of E1 or T1 interfaces configured in inverse multiplexing over ATM (IMA) mode that are in use, free, or disabled, on any line interface modules (LIMs) in a Stinger unit.

Permission level system

Usage imagroups [-a | -d | -f | -u]

Command element	Description
No options	Display the options for this command.
-a	Show all IMA groups.
-d	Show disabled groups.
-f	Show all free groups.
-u	Show groups that are in use.

Example To display all IMA groups:

```
admin> imagroups -a
All IMA groups:
                      (dvOp  dvUpSt dvRq   sAdm     nailg)
ima-co { 1 2 25 }     (Down  Idle   UP     UP       100)
```

Field	Description
dvOp	Current operational state of the line: ■ Down indicates that the line is in a nonoperational state. ■ Up indicates that the line is in normal operations mode.
dvUpSt	Status of the line in normal operations mode: ■ Idle indicates that no call is on the line. ■ Active indicates that the line is handling a call.
dvRq	Required state of the line: ■ Down indicates that the line is required to be nonoperational. ■ Up indicates that the line is required to be in normal operations mode.
sAdm	Desired administrative state of the line: ■ Down specifies that the line should terminate all operations and enter the down state. ■ Up specifies that the line should start up in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated that should change the Stinger unit to the state desired.
nailg	Dedicated (nailed) group to which the line is assigned.

imalines

Description Displays the status of all T1 or E1 lines, or those that are in use, free, or disabled, on any line interface modules (LIMs) in a Stinger unit.

Permission level system

Usage imalines [-a | -d | -f | -u]

Command element	Description
No options	Display the options for this command.
-a	Show all inverse multiplexing over ATM (IMA) lines.
-d	Show disabled lines.

Command element	Description
`-f`	Show all free lines.
`-u`	Show lines that are in use.

Example To display the status of all IMA lines:

```
admin> imalines -a

All IMA lines:
                                        (dvOp  dvUpSt  dvRq   sAdm  lMode  Nailg)
 Line  {   1  3  1 }                    (Up     Assign UP     UP     IMA   00101)
 Line  {   1  3  2 }                    (Up     Assign UP     UP     IMA   00101)
 Line  {   1  3  3 }                    (Up     Assign UP     UP     IMA   00101)
 Line  {   1  3  4 }                    (Down   Idle   DOWN   DOWN   ATM   00104)
 Line  {   1  3  5 }                    (Down   Idle   DOWN   DOWN   ATM   00105)
 Line  {   1  3  6 }                    (Down   Idle   DOWN   DOWN   ATM   00106)
 Line  {   1  3  7 }                    (Down   Idle   DOWN   DOWN   ATM   00107)
 Line  {   1  3  8 }                    (Down   Idle   DOWN   DOWN   ATM   00108)
```

Field	Description
`dvOp`	Current operational state of the line: ■ `Down` indicates that the line is in a nonoperational state. ■ `Up` indicates that the line is in normal operations mode.
`dvUpSt`	Status of the line in normal operations mode: ■ `Idle` indicates that no call is on the line. ■ `Active` indicates that the line is handling a call.
`dvRq`	Required state of the line: ■ `Down` indicates that the line is required to be nonoperational. ■ `Up` indicates that the line is required to be in normal operations mode.
`sAdm`	Desired administrative state of the line: ■ `Down` specifies that the line should terminate all operations and enter the `down` state. ■ `Up` specifies that the line should start up in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated that should change the Stinger unit to the state desired.

Field	Description
lMode	Interface mode: ■ IMA indicates an interface that is part of an IMA group. ■ ATM indicates a single, ungrouped interface. Both IMA and ATM interface types can support User-to-Network Interface (UNI) or Private Network-to-Network Interface (PNNI) signaling.
nailg	Dedicated (nailed) group to which the line is assigned.

See Also imagroups

info

Description info displays some useful system information.

Permission level system

Usage info

Example

```
admin> info
Platform         : Lucent Stinger FS
System Name      : (not configured)
Serial Number    : 1308530130
Software Version : TAOS 9.5-206.0e0 (stngrcm2)
* * * rtr/stngrcm2 <rsshukla> Jul 11 2003 17:57 * * *
Boot Version     : TAOS 9.5-206.0e0
Controller Role  : Primary
Hardware revision: 2.2  Model E - IP (Version B) with gigE fiber interface.
```

inputrelaytest

Description The inputrelaytest command simulates the status of relays to generate relay alarm and trap conditions for testing.

Permission level system

Usage inputrelaytest [-p | -i | -m | -(0-7) | -t | -s -h]

Command element	Description
-p	Enables/disables the input relay alarm test. When you have completed the test, you must enter the inputrelaytest -p command again to return to external input relay alarm mode.
-i	Reinitializes the test.
-m	Toggles the close or open setting when you set an individual relay.
-0	Specifies that all relays are used for testing.

Command element	Description
-(1 through 7)	Specifies an individual for testing.
-t	Shows the simulation test input relay status.
-s	Shows the external input relay status.
-h	Help

Example The following sample configure an `alarm` profile, configure a `trap` profile, and runs an input relay test.

The following commands configure the unit to generate an alarm by illuminating the major LED when the input relays are closed:

```
admin> new alarm relay
ALARM/relay read
admin> set enabled = yes
admin> set event = input-relay-closed
admin> set physical-address = { any-shelf any-slot 0 }
admin> set action alarm-led-major = on
admin> write
ALARM/relay written
```

Example The following commands create the `trap` profile for the specified events:

```
admin> new trap relay
TRAP/relay read
admin> community-name = public
admin> host-address = 135.17.134.31
admin> host-port = 2345
```

Example The following commands enable the test mode:

```
admin> inputrelaytest -p
Test input relay alarm is enabled
Remember to run "inputrelaytest -p" again to return to external input relay
alarm mode when finish the test!
```

Example The following commands close all relays:

```
admin> inputrelaytest -m
Set relay CLOSED mode
admin> inputrelaytest -0
All test input relay closed
```

Example The following commands simulates an individual input relay, relay 1, as open:

```
admin> inputrelaytest -m
Set relay OPEN mode
admin> inputrelaytest -1
Test input relay 1 open
```

Example The following sample command shows the status of the input relays:

```
admin> inputrelaytest -t
Test Input Relay Status
Item  Status
------------------------
 1    OPEN
 2    OPEN
 3    OPEN
 4    OPEN
 5    OPEN
 6    OPEN
 7    OPEN
```

Example The following command shows the status of the external input relays:

```
admin> inputrelaytest -s
External Input Relay Status
Item  Status
------------------------
 1    OPEN
 2    OPEN
 3    OPEN
 4    OPEN
 5    OPEN
 6    OPEN
 7    OPEN
```

ipcache

Description A utility that displays, debugs, enables, and disables the IP route cache.

Permission level system

Usage ipcache [-r *vroutername*] cache | debug | disable | enable

Command element	Description
-r *vroutername*	Name of the virtual router (VRouter). If you do not specify a name, the system uses the global VRouter.
cache	Display the cache.
debug	Enable or disable debugging
disable	Disable IP route cache routing on module. Enabled by default. Available only on modules.
enable	Enable IP route cache routing on module. Available only on modules.

Example To display output on the control module:

```
admin> ipcache cache
Hsh     Address         Gateway          Ifname   Sh/Sl/T   MTU
20      50.0.0.20       200.168.26.74    wan392   1/14/D   1524
40      20.0.0.40       20.0.0.40        ie1-3-1  1/3/S    1500
Cache Limit 0 Cache Count 2 Cache over limit 0 No.packets 9
Mem Usage: Allocated 1k bytes
Free block count 22
```

Field	Description
Hsh	Hash code.
Address	Destination IP address.
Gateway	IP address of the gateway.
Ifname	Interface name.
Sh/Sl/T	■ Sh is an abbreviation for *shelf*. ■ Sl is an abbreviation for *slot*. ■ Type (T) is either D (dynamic cache entry) or S (static cache entry).
MTU	Maximum transmission unit.
MPath	Displays cache entries derived from multipath routes. If Y is displayed, the route is listed.

Example To display output on a module in slot 3:

```
admin> open 1 3
ether2-1/3> ipcache cache
Hsh Address    Gateway          Sh/Sl/T    Switched  MTU    MPath
0   99.1.1.1   200.168.21.30     1/14/D    0         1524   Y/0.0.0.0/0
20  50.0.0.20  200.168.28.170    1/15/D    85068     1524   Y/0.0.0.0/0
40  20.0.0.40  20.0.0.40         1/3 /S    0         1500   N
```

See Also dumpcachestat, iproute

ip-pools

Description

Permission level

Usage ip-pools [-r *VRoutername*]

Command element	Description
-r *VRoutername*	To display IP pool information for a specific virtual router (VRouter), replace *VRoutername* with the name of a VRouter. If you do not specify a VRouter name, the system assumes the global VRouter.

Example The following example displays the status of global address pools. The output shows two configured pools, with the base address, address count, and number of addresses in use for each pool:

```
admin> ip-pools
Pool#                Base         Count      InUse
   1               192.168.0.0      10          0
   2                  10.0.0.0    1000          0


 Number of remaining allocated addresses:    0
```

Example The following example is for a VRouter `vrtr1`:

```
admin> ip-pools vrtr1

Pool#                Base         Count      InUse
   1                  20.0.0.0     100          0

 Number of remaining allocated addresses:    0
```

ipportmap

Description Displays active User Datagram Protocol (UDP) and Transmission Control Protocol (TCP) port mappings.

Permission level `system`

Usage `ipportmap -c | -m`

Argument	Description
`-c`	Display the cache state.
`-m`	Display current mappings.

Example To display the number of active ports:

```
admin> ipportmap -c
Port Counts
Active Ports: 18
Active UDP Ports: 17
Active TCP Ports: 1
IP Port Cache is ON
```

Example To display the protocol, IP address, shelf number, and slot number for each port:

```
admin> ipportmap -m
Port   Proto   Addr          Sh/Sl/ID/TAG       Refcnt ICMPCB
23     TCP     0.0.0.0/32    1/42/0 /0          1066   803b4550
11107  UDP     0.0.0.0/32    1/7 /0 /ffffffff   3      0
9212   UDP     0.0.0.0/32    1/7 /0 /ffffffff   3      0
1018   UDP     0.0.0.0/32    1/7 /0 /ffffffff   3      0
9213   UDP     127.0.0.1/32  1/42/0 /0          3      0
9214   UDP     0.0.0.0/32    1/8 /0 /ffffffff   3      0
1019   UDP     0.0.0.0/32    1/8 /0 /ffffffff   3      0
```

```
3350    UDP     0.0.0.0/32    1/42/0 /0          3       0
1701    UDP     0.0.0.0/32    1/42/0 /0          3       0
1020    UDP     0.0.0.0/32    1/42/0 /0          3       0
5150    UDP     0.0.0.0/32    1/42/0 /0          3       0
161     UDP     0.0.0.0/32    1/42/0 /0          3       0
123     UDP     0.0.0.0/32    1/42/0 /0          3       0
7       UDP     0.0.0.0/32    1/42/0 /0          3       0
520     UDP     0.0.0.0/32    1/42/0 /0          3       0
1021    UDP     0.0.0.0/32    1/42/0 /0          3       0
1022    UDP     0.0.0.0/32    1/42/0 /0          3       0
1023    UDP     0.0.0.0/32    1/42/0 /0          3       0
```

iproute

Description Enables you to manually add or delete IP routes. Changes to the routing table do not persist across system resets.

Permission level system

Usage iproute
[add *dest_IPaddr*[/*subnet_mask*] *gateway_IPaddr*[/*subnet_mask*] [*pref*] [*metric*]
|delete *dest_IPaddr*/*subnet_mask* [*gateway_IPaddr*[/*subnet_mask*]]]

Command element	Description
add	Add an IP route to the routing table.
delete	Delete an IP route from the routing table.
dest_IPaddr/*subnet_mask*	Destination network address and optional subnet mask (in bits). The default is 0.0.0.0/0.
gateway_IPaddr/*subnet_mask*	IP address of the router that can forward packets to the destination network, and optional subnet mask (in bits). The default is 0.0.0.0.
pref	Route preference. The default is 100.
metric	Virtual hop count of the route. You can enter a value between 1 and 15. The default is 1.

Example To add a static IP route to the unit's routing table, use the `iproute add` command. For example, the following command adds a route to the 10.1.2.0 network, through the IP router located at 10.0.0.3/24. The metric to the route is 1 (one hop away).

```
admin> iproute add 10.1.2.0/24 10.0.0.3/24 1
```

If you try to add a route to a destination that is already in the routing table, the Stinger unit replaces the existing route only if it has a higher metric than the route you are attempting to add. If you get the message `Warning: a better route appears to exist`, the Stinger unit has rejected your attempt to add a route.

Note Routing Information Protocol (RIP) updates can change the metric for the route. Also, any routes you add with the `add` option are lost when you reset the Stinger unit.

Example To remove a static IP route from the unit's routing table, enter the `iproute delete` command. For example, the following command removes the route to the 10.1.2.0 network:

```
admin> iproute delete 10.1.2.0/24 10.0.0.3/24
```

Note RIP updates can add back any route you remove with `delete` option. Also, the Stinger unit restores all routes listed in the `ip-route` profile after a system reset.

See Also `ipcache`

isolate

Description Enables galvanic isolation tests for a range of line interface module (LIM) ports or a list of individual ports.

Permission level `system`

Usage `isolate` *`shelf slot start-port - end-port | shelf slot p1 [p2. . . .]`*

Command element	Description
`start-port`	First port of the range to be tested
`end-port`	Last port of the range to be tested
`p1 [p2. . . .]`	List of ports to be tested

Example To test ports 1 through 10 for a LIM in shelf 1, slot 5:

```
admin> isolate 1 5 1 - 10
```

To test ports 3, 4, and 9 for a LIM in shelf 1, slot 5:

```
admin> isolate 1 5 3 4 9
```

See Also `deisolate`

L

line

Description Specifies that the upper-right or lower-right portion of the status window (or both) displays line and channel status information. If the status window is not already displayed, this command opens it with the connection status information displayed.

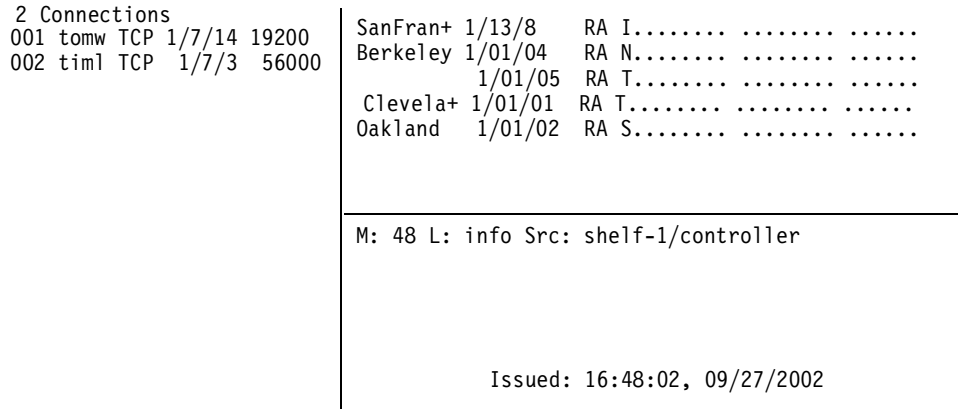
Permission level system

Usage line all | enabled | top | bottom

Command element	Description
all	Display status information about all lines.
enabled	Display status information only about enabled lines.
top	Display line status in the upper portion of the status window.
bottom	Display line status in the lower portion of the status window (the default).

Example To display line status information in the upper part of the status window:

```
admin> line top
```



Line status information includes the following identifiers and codes:

- A line identifier in *shelf/slot/line* format.
- A two-character code indicating the line's link status.
- A single-character code indicating channel status. For Signaling System 7 (SS7) data trunk, this character code is always 7.

Following are the link-status codes:

Link-status code	Description
LS (UDS3 lines)	Loss of signal. No signal has been detected.
LF (UDS3 lines)	Loss of frame. A signal is present but is not valid for framing.
RA	Red Alarm. The line is not connected, or it is improperly configured, experiencing a very high error rate, or supplying inadequate synchronization.
YA	Yellow Alarm. The Stinger unit is receiving a Yellow Alarm pattern, which indicates that the other end of the line cannot recognize the signals the Stinger unit is transmitting.
DF	D-channel fail. The D channel for a PRI line is not currently communicating.
1S	All ones. The network is sending a keepalive signal to the Stinger unit to indicate that the line is currently inoperative.
DS	Disabled. The line might be physically connected, but the profile specifies that it is inactive.

Following are the channel-status codes:

Channel status code	Description
.	The channel is not available for one of the following reasons: ■ The line is disabled. ■ The channel has no physical link or does not exist. ■ The channel configuration specifies that the channel is unused. ■ The channel is reserved for framing.
*	The channel is connected in a current call.
-	The channel is currently idle, but in service.
c	The channel is currently not available because it is in the process of clearing the most recent call, or because it is in the process of sending echo cancellation tones to receive a call.
d	The Stinger unit is dialing from this channel for an outgoing call.
r	The channel is ringing for an incoming call.
m	The channel is in maintenance/backup mode (ISDN and SS7 only).

Channel status code	Description
n	The channel is dedicated (nailed).
o	The channel is out of service (ISDN and SS7 only).
s	The channel is an active D channel (ISDN only).

See Also `connection`, `log`, `view`

list

Description Lists the contents of the current or specified context in the working profile. Listing a subprofile changes the current context to that subprofile. Specifying two periods (..) as the command argument changes the current context back to one level higher in the working profile (making the subprofile inactive). The `list` command works only on the working profile.

Permission level `system`

Usage `list [..] [`*`param-name`* `[`*`param-index`*`] [`*`subprofile`*`]]`

Command element	Description
`..` (two periods)	Close the current subprofile, return to the previous higher context, and list it. You can also enter `list ..` with the name of a subprofile from the higher context—for example, `list .. ip-options`. In this way the single entry of the command switches the context and lists the specified subprofile.
param-name	List a parameter in the current context. If the parameter is in a subprofile, you must specify the subprofile name first.
param-index	List complex parameters that have an index. For example, the `interface-address` parameter contains both the `physical-address` and `logical-item` indexes.
subprofile	List the contents of a subprofile that is visible in the current context, and make that subprofile the current context.

Example To make a `connection` profile named `dallas` the working profile:

```
admin> read connection dallas
```

To list its contents:

```
admin> list
[in CONNECTION/dallas]
station*=dallas
active=yes
```

```
encapsulation-protocol=atm
called-number-type=national
dial-number=85283
clid=""
ip-options={ yes yes 1.1.1.1/8 0.0.0.0/0 7 100 255 no no 0 +
session-options={ "" "" no 120 no-idle 120 "" }
telco-options={ ans-and-orig no off 1 no no 64k-clear 0 "" "" +
usrRad-options={ global 0.0.0.0 1646 "" 1 acct-base-10 }
calledNumber=""
```

To list the `ip-options` subprofile:

```
admin> list ip-options
[in CONNECTION/dallas:ip-options]
ip-routing-enabled=yes
vj-header-prediction=yes
remote-address=0.0.0.0/0
local-address=0.0.0.0/0
routing-metric=7
preference=100
down-preference=255
private-route=no
temporary-route=no
ip-direct=0.0.0.0
rip=routing-off
client-default-gateway=0.0.0.0
if-remote-address=0.0.0.0
tos-options={ no 00 normal input }
source-ip-check=no
```

To return to the top-level context of the profile:

```
admin> list ..
```

To use the `list` command to display the `telco-options` subprofile:

```
admin> list .. telco
[in CONNECTION/dallas:telco-options]
answer-originate=ans-and-orig
nailed-groups=1
force-56kbps=no
data-service=56k-restricted
call-by-call=0
billing-number=""
transit-number=""
```

The `list` command works only on the working profile. To make an existing profile the working profile, use the `read` command. When you create a new profile, it becomes the working profile automatically.

See Also `dir, get, read, new, set, write`

load

Description Uploads a code image to flash memory or runs a remote configuration script. The code image or script can be located on the disk of the PC you are using for the terminal session with the Stinger unit, on a network host that supports Trivial File Transfer Protocol (TFTP), or on the PCMCIA flash memory card file system of the control module.

Permission level `update`

Usage `load [-v] [-l] [-t] [-e` *`password`*`] `*`load-type`*` [`*`subtype`*`] `*`source`*` [`*`target-device`*`]`

Command element	Description
`-v`	Display verbose output for configuration loads.
`-l`	Load the code to the local controller only and do not transfer the image to the peer.
`-t`	Load the peer control module as well as the current control module.
`-e` *`password`*	Password to generate a key for encryption or decryption. This option supports only a load type of `config` using a `source` of `network`.
`load-type`	Type of the image to upload. If no load type is specified, the load types that reside on the source device are loaded. Following are valid values: ■ `config`—Configuration file ■ `file`—Generic file. ■ `boot-cm`—Control module boot image. ■ `tar`—Software binaries. ■ `gzip`—Compressed binaries. ■ `cm`—Control module image. ■ `cm-v2`—Code for the new control modules. ■ `sdsl-atm`—Code for an SDSL LIM. ■ `al-dmtadsl-atm`—Code for a 12-port ADSL LIM.

Command element	Description
	■ `sdsl-atm-v2`—Not supported. ■ `dadsl-atm-24`—Code for a 24-port ADSL LIM. ■ `glite-atm-48`—Code for an ADSL 48-port G.lite LIM. ■ `hdsl2`—Code for a 32-port LIM. ■ `t1000`—Code for T1000 module. ■ `ima`—Code for a 24-port or 8-port inverse multiplexing over ATM (IMA) T1 or E1 module. ■ `stngridsl`—Code for an IDSL LIM. ■ `40dmt-atm`—Code for a 40 channel annex C LIM. ■ `48-dmt-atm`—Code for a 48 channel annex A LIM. ■ `shdsl`—Code for an SHDSL LIM. ■ `72ct-dmt-atm`—Code for a 72 port annex A ADSL LIM. ■ `32-dmt-aslam`—Not supported. ■ `vdsl`—Not supported. ■ `72-gs-dmt-atm`—Not supported.
subtype	Subtype of the image. Following are valid values: ■ `normal`—Regular image. The default. ■ `debug`—Debugging image. ■ `diagnostic`—Diagnostic image.
source	Location from which the file is loaded. Following are valid values: ■ `network` *`host filename`*—After typing the word `network`, you can specify a hostname or IP address and path to the file on a TFTP host. ■ `console [`*`filename`*`]`—The PC connected to the Stinger unit via the serial port. ■ *`flash device filename`*—The flash card number and filename of the configuration file. Multiple filenames are allowed for network `tar` loads.
target-device	Name of the PCMCIA flash card to load. Following are valid device names: ■ `[flash-card-]1` (the default) ■ `[flash-card-]2` The device names can be abbreviated as 1 and 2. You need not specify a target device if the load type is `config`.

Example To load a configuration file named `unit.cfg` from network host `10.8.7.2` to flash card 1:

```
admin> load config network 10.8.7.2 /unit.cfg
```

Example To load Stinger control module image `stngrtcm.ffs` from a TFTP server `pclab-20` and copy the image to the peer control module:

```
admin> load -t cm network pclab-20 stngrtcm.ffs
loading code from 207.137.197.90
file stngrtcm.ffs...
done.
Attempting to write image(s) to other controller
Trying device 1 of remote controller first
Transferring 1/current/stngrtcm.ffs ...
done.
1 image successfully transferred
```

Example To load Stinger `tar` image `stngrrel.tar` from TFTP server `pclab-20` and copy all images to the secondary control module:

```
admin> load -t tar network pclab-20 stngrrel.tar
loading code from 207.137.197.90
file stngrrel.tar...
untaring and loading image for...
cm (stngrcm/stngrcm.ffs)...
sdsl-atm-card (stngrcsdsl/stngrcsdsl.ffs)...
al-dmtadsl-atm-card (stngrcaldsl/stngrcaldsl.ffs)...
done.
Attempting to write image(s) to other controller
Trying device 1 of remote controller first
Attempting to transfer all loads
Transferring 1/current/stngrcm.ffs ...
done.
Transferring 1/current/stngrcsdsl.ffs ...
done.
Transferring 1/current/stngrcaldsl.ffs ...
done.
3 images successfully transferred
```

Example To load the `unitrel.tar` file from a network host named `host1`:

```
admin> load tar network host1 unitrel.tar
```

Dependencies Consider the following:

- A `load` operation and a `loadmate` operation cannot be run simultaneously.
- You can set parameters in the `load-select` profile to specify which control module images to load to flash memory when you use a `load tar` command. An explicit `load` command for a particular module type overrides the settings in the `load-select` profile. The `load` command supports type checking to verify that the load type specified on the command line matches the image header.
- If you are using an Asynchronous Transfer Mode (ATM) virtual channel connection (VCC) as an inband management channel, you must be careful when downloading a configuration file using the `load` configuration command.

- A `connection` profile and an associated `atm-qos` profile define each management channel. If the management channel's `connection` profile or `atm-qos` profile stored in the Stinger unit is different from the profile defined in the configuration file, the inband management channel might be disconnected during the load.

  If the `connection` profile and associated `atm-qos` profile are different, to successfully load the configuration proceed as follows:

  a Delete the connection profile and associated `atm-qos` profile from the configuration file.

  b Load the modified configuration file.

  c Using the command-line interface, change the `connection` profile and associated `atm-qos` profile to match the profiles that were in the original configuration file.

  If there is no difference between the profiles, no special action is needed.

See Also `dircode, format, fsck, load, save`

loadmate

Description Loads code images from one control module to the other. The command can be entered from either the primary control module or the secondary control module

Permission level `update`

Usage `loadmate [`*`load-type`*`] [`*`subtype`*`] `*`source-device`*` [`*`target-device`*`] [`*`filename`*`]`

Command element	Description
load-type	Type of image to transfer. If no load type is specified, then all load types that reside on the source device are transferred. Following are valid values: ■ `file`—Generic file. ■ `boot-cm`—Control module boot image. ■ `cm`—Control module image. ■ `sdsl-atm`—Code for an SDSL LIM. ■ `al-dmtadsl-atm`—Code for a 12-port ADSL LIM. ■ `sdsl-atm-v2`—Not supported ■ `dadsl-atm-24`—Code for a 24-port ADSL LIM. ■ `glite-atm-48`—Not supported. ■ `annexb`—Not supported. ■ `hdsl2`—Not supported. ■ `t1000`—Not supported. ■ `ima`—Not supported.

Command element	Description
subtype	Subtype of the image. Following are valid values: ■ `normal`—Regular image (default). ■ `debug`—Debugging image. ■ `diagnostic`—Diagnostic image.
source-device	Either of the following: ■ Boot image number (1 or 2) on the source control module for boot images. If no boot number is specified, then boot image 2 is used as the default. ■ PCMCIA flash memory card number of the source control module for nonboot images.
target-device	PCMCIA flash memory card number of the destination control module for nonboot images. This value must be specified for nonboot images, but is not used for boot images.
filename	Name of the file when the load type is `file`.

Example To copy the control module's software image from flash card 1 of the control module in slot 8 to flash card 1 of the control module in slot 9, enter the following command on the control module in slot 8:

```
admin> loadmate cm 1 1
```

Example To copy boot image 2 on the control module in slot 8 to the onboard flash memory of the control module in slot 9, enter the following command on the control module in slot 8:

```
admin> loadmate boot
```

Example To transfer all images of any known load type on flash card 1 of the control module in slot 9 to flash card 2 of the control module in slot 8, enter the following command on the control module in slot 9:

```
admin> loadmate 1 2 (executed)
```

Dependencies A `load` and `loadmate` operation or two `loadmate` operations cannot be run simultaneously. Both control modules must be running TAOS release 7.11.2 or later.

See Also `dircode, format, fsck, load, save`

loadslave

Description Loads software to a remote shelf from the host's flash memory. Use of this command is usually optional, because the system performs this function automatically in most cases. For details, see the documentation on hosted operation of remote shelves.

Permission level `system`

Usage `loadslave` *`shelf image`*

Field	Description		
`shelf`	Specify the shelf ID of the remote shelf.		
`image`	Specify the number of the file to load as shown in the following list:		
	1 or 2	`mrtcmb.bin`	Bootloader image 1 or 2, which are currently identical.
	3	`mrtcm.ffs`	Operational (runtime) software

Example Before resetting the host, use the `loadslave` command to transfer the upgraded operational code to each remote shelf. For example, the following commands load the boot code to shelves 2, 3, and 4:

```
HOST> loadslave 2 3
HOST> loadslave 3 3
HOST> loadslave 4 3
```

Dependencies This command is functional only within a multishelf configuration. To upgrade the shelves manually, the `loadslave` command must be entered before resetting the host. (After the reset, system automatically upgrades remote shelves with older software.)

log

Description Specifies that the upper-right or lower-right portion of the status window (or both) must display a message from the Stinger unit's log buffer that contains the most recent system events. If the status window is not already displayed, this command opens it with the connection status information displayed.

The `log` profile controls whether logs are sent to a `syslog` host, as well as how many logs are stored in the Stinger unit's buffer. The number of events stored in the log is set by the `save-number` parameter.

Permission level `system`

Usage `log [top | bottom | [-p -r -t]]`

Command element	Description
`top`	Display the log in the upper-right portion of the status window.

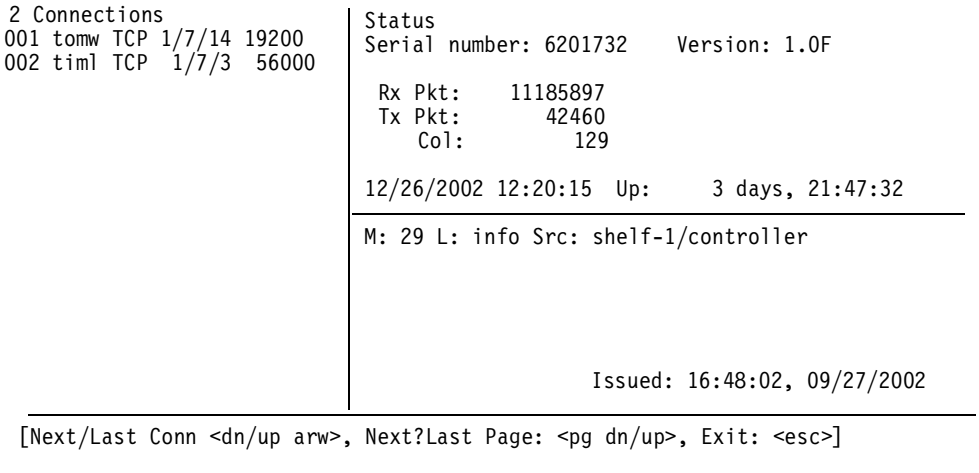
Command element	Description
bottom	Display the log in the lower-right portion of the status window.
-p	Print the contents of the system log to screen, with the most recent entry first.
-r	Print the contents of the system log in reverse order, with the oldest log entry first
-t	Truncate the command output to the screen width. Many log entries are longer than the standard 80 characters of terminal output. This option truncates the output of the command to the screen width as defined by the current width set by the screen command.

Example To display the system log with the most recent log entry first:

```
admin> log -p
Time     Date       Source             Level   Description
11:11:25 10/16/2002 shelf-1/controller notice  Slot 1/10, state UP 2
11:11:20 10/16/2002 shelf-1/slot-10    info    Software version 9.0.0
11:11:20 10/16/2002 shelf-1/slot-10    info    Card serial number 91469
11:10:15 10/16/2002 shelf-1/controller notice  Slot 1/5, state UP 2
11:10:10 10/16/2002 shelf-1/slot-5     notice  100BaseT: Link down
11:10:10 10/16/2002 shelf-1/slot-5     notice  ie1-5-3: Link down
11:10:10 10/16/2002 shelf-1/slot-5     notice  ie1-5-2: Link down
11:10:10 10/16/2002 shelf-1/slot-5     notice  ie1-5-1: Link down
11:10:10 10/16/2002 shelf-1/slot-5     notice  ie1-5-1: Link down
```

To display the event log in the lower portion of the status window:

```
admin> log bottom
```



The first line of the event-log window shows the log entry number (M:00 through M:N, where N is set in the save-number parameter of the log profile), the level of message, and the device on which the event occurred. The last line shows the date and time when the event occurred.

The message levels are as follows:

Message level	Description
`emergency`	A failure or major error has occurred, and normal operation is doubtful.
`alert`	A failure or major error has occurred, but normal operation can probably continue.
`critical`	An interface has gone down, or there has been a security error.
`error`	Something that should not occur has occurred.
`warning`	Something out of the ordinary, such as a login failure due to an invalid username or password, has happened in otherwise normal operations.
`notice`	Something of interest, such as a link going up or down, has happened during normal operation.
`info`	A change in state or status was noticed. Such messages are not of general interest.
`debug`	The message is of interest only if you are debugging a configuration.

The text of the most recent message is displayed in the middle of the window. You can press the Up-Arrow key to see previous messages, and return to more recent messages by pressing the Down-Arrow key.

Following are some sample informational messages:

Information message	Description
`48 out of 48 modems passed POST`	All of the modems on a card passed the power-on self test (POST).
`Incoming call`	A call has been received but not yet routed.
`Outgoing call`	The unit has dialed a call.
`Added Bandwidth`	The unit has added bandwidth to an active call.
`Ethernet up`	The Ethernet interface has been initialized and is running.
`LAN session up`	A Point-to-Point Protocol (PPP) session has been established.
`LAN session down`	A PPP session has been terminated.
`Assigned to port`	The unit has determined the assignment of an incoming call to a digital modem or High-Level Data Link Control (HDLC) channel.
`Call Terminated`	An active call was disconnected normally, although not necessarily by operator command.

Information message	Description
`Removed Bandwidth`	The unit has removed bandwidth from an active call.
`RADIUS config error`	The unit has detected an error in the configuration of a RADIUS user profile.
`Requested Service Not Authorized`	This message appears in the terminal server interface if the user requests a service not authorized by the RADIUS server.

Following are some sample warning messages:

Warning message	Description
`Network problem`	The call setup was faulty because of problems in the WAN or in the `line` profile configuration. The D channel might be getting an error message from the switch, or the telephone company might be experiencing a problem.
`Call disconnected`	The call has ended unexpectedly.
`Far end hung up`	The remote end terminated the call normally.

Press the Escape key to display a prompt below the status window.

See Also `connection, log (profile), view`

ls

Description Shows the contents of any PCMCIA flash memory card directory: filename, subtype, status, size, creation date, the amount of space currently in use, and the amount of space available on the card.

Permission level `system`

Usage `ls [`*`socket`*`[/`*`path`*`]]`

Command element	Description
`socket`	Flash card number
/`path`	Subdirectory on the flash card

Example To list the contents of the flash card on the current control module:

```
admin> ls
ls Flash card 1:
/:
  current/                    0 Mon Jun  9 16:40:50 2003
  z/                          0 Mon Jun  9 16:42:18 2003
/current:
  stngrcm.ffs           4477734 Tue Jul  1 10:00:24 2003 Version 9.5-206.0e0
  stngrrsdsl.ffs        1013721 Tue Jul  1 10:00:40 2003 Version 9.5-206.0e0
  stngrt1000.ffs        1314833 Tue Jul  1 10:01:02 2003 Version 9.5-206.0e0
/z:
  save.conf              1439600 Fri Jun 27 16:45:56 2003

Total space:   31997952 bytes
       used:    8347648 bytes
       free:   23650304 bytes
```

See Also cat, mkdir, mv, rm

M

mkdir

Description Creates a new directory on a PCMCIA flash memory card.

Permission level system

Usage mkdir *socket/path*

Command element	Description
socket	Flash card number
/path	Subdirectory on the flash card

Example To create the directory test on flash card 1:

```
admin> mkdir 1/test
```

See Also cat, ls, mv, rm

mprt

Description Displays multipath routes.

Permission level system

Usage mprt [-l]

Command element	Description
-l	Display page-by-page output.

Example To list multipath routes page by page:

```
admin> mprt -l
MP Route Gateway        Shelf/Slot IF Addr          Mtu  Switched
1.1.1.1/32
         200.200.200.3  ( 1/17)    200.200.200.230  1500  0
         200.200.200.2  ( 1/17)    200.200.200.230  1500  0
         200.200.200.4  ( 1/17)    200.200.200.230  1500  0
         200.200.200.5  ( 1/17)    200.200.200.230  1500  0
         200.200.200.6  ( 1/17)    200.200.200.230  1500  0
         200.200.200.7  ( 1/17)    200.200.200.230  1500  0
         200.200.200.8  ( 1/17)    200.200.200.230  1500  0
         200.200.200.9  ( 1/17)    200.200.200.230  1500  0
         200.200.200.10 ( 1/17)    200.200.200.230  1500  0
         200.200.200.11 ( 1/17)    200.200.200.230  1500  0
         200.200.200.12 ( 1/17)    200.200.200.230  1500  0
         200.200.200.13 ( 1/17)    200.200.200.230  1500  0
         200.200.200.14 ( 1/17)    200.200.200.230  1500  0
         200.200.200.15 ( 1/17)    200.200.200.230  1500  0
         200.200.200.16 ( 1/17)    200.200.200.230  1500  0
         200.200.200.17 ( 1/17)    200.200.200.230  1500  0
         200.200.200.18 ( 1/17)    200.200.200.230  1500  0
         200.200.200.19 ( 1/17)    200.200.200.230  1500  0
         200.200.200.20 ( 1/17)    200.200.200.230  1500  0
         200.200.200.1  ( 1/17)    200.200.200.230  1500  0
         200.200.200.21 ( 1/17)    200.200.200.230  1500  0
         200.200.200.22 ( 1/17)    200.200.200.230  1500  0
```

mv

Description Moves a file or directory from one file or directory to another on a PCMCIA flash memory card.

Permission level system

Usage mv *socket1/path1 socket2/path2*

Command element	Description
socket1	Number of the flash card on which *path1* is found.
socket2	Number of the flash card on which *path2* is found.
path1	File and/or directory to be moved.
path2	File and/or directory that replaces *path1*.

Note You cannot move a file or directory from one flash card to another with the mv command.

Example To replace the /test1 directory on flash card 1 with the /test2 directory:

```
admin> mv 1/test1 1/test2
```

See Also cat, ls, mkdir, rm

N

netstat

Description Displays the Stinger interface and routing tables, protocol statistics, and active sockets.

Permission level system

Usage netstat [-i] [-r[*host*]] [?] [-n | -d][-s *identifiers*][-z]

Command element	Description
No options	Display User Datagram Protocol (UDP) and Transmission Control Protocol (TCP) statistics.
-i	Display the IP interface table.
-r *host*	Display the IP routing table. You can specify a hostname after the –r option to display the routing table entry for that host.
-?	Display a usage summary.
-n	Display numeric addresses rather than symbolic names (the default).
-d	Display symbolic names rather than numeric addresses.
-s *identifiers*	Display protocol statistics. If no identifiers follow the –s option, all protocol statistics are printed. If you specify one or more identifiers, they determine the type of protocol statistics to display. Following are the valid protocol identifiers: ■ udp ■ tcp ■ icmp ■ ip ■ igmp ■ mcast
-z	Display zombie routes created for Routing Information Protocol (RIP). Zombie routes are those that have been deleted from the main routing table and are advertised with an infinite metric (16) for a period of 2 minutes to cause neighboring routers to flush this route from their tables.

Example To display both UDP and TCP statistics, do not specify any options:

```
admin> netstat

udp:
-Socket-  Local Port  InQLen  InQMax    InQDrops    Total Rx
1/c    0        1023       0       1           0           0
1/c    1       route       0       0           0          25
1/c    2        echo       0      32           0           0
1/c    3         ntp       0      32           0           1
1/c    4        1022       0     128           0           0
1/c    5        snmp       0     128           0           0
1/1    0           1       0     256           0           0
1/1    1        1018       0     128           0           0
1/3    0           3       0     256           0           0
1/3    1        1021       0     128           0           0
1/5    0           5       0     256           0           0
1/5    1        1020       0     128           0           0
tcp:
Socket  Local                    Remote                        State
1/c 0   *.23                     *.*                         LISTEN
1/c 1   10.2.3.114.23            15.5.248.121.44581     ESTABLISHED
```

The display fields contain the following information:

Field	Description
`Socket`	Shelf, slot, and socket corresponding to a local UDP or TCP port.
`Local Port`	Port on which the Stinger unit is listening for UDP packets.
`InQLen`	Number of packets in the input queue for the socket. The packets are waiting to be processed.
`InQMax`	Maximum number of packets that can reside in the input queue for the socket. A value of 0 (zero) means no limit. The Stinger unit drops excess packets.
`InQDrops`	Number of packets dropped from the input queue because the value of `InQMax` was reached.
`Total Rx`	Total number of packets received on the socket, including dropped packets.
`Local`	Local IP address and port for a TCP session. For example, in the value `10.2.3.114.23`, `10.2.3.114` specifies the IP address and `23` specifies the port for a TCP session. If the address portion contains only an asterisk (*), the Stinger unit is listening for the start of a TCP session.
`Remote`	Remote IP address and port for a TCP session. For example, in the value `15.5.248.121.44581`, `15.5.248.121` specifies the IP address and `44581` specifies the port for a TCP session. If the specification contains only asterisks (*.*), the Stinger unit is listening for the start of a TCP session.

Field	Description
State	State of the session. Following are the possible state values: ■ CLOSED—The socket is not in use. ■ LISTEN—The socket is listening for incoming connections. Note that no session is associated with the LISTEN state, because this state precedes the establishment of a TCP session. ■ SYN_SENT—The socket is trying to establish a connection. ■ SYN_RECEIVED—The connection is being synchronized. ■ ESTABLISHED—The connection is established. ■ CLOSE_WAIT—The remote side has shut down the connection, and the Stinger unit is waiting for the socket to close. ■ FIN_WAIT_1—The socket is closed, and the Stinger unit is shutting down the connection. ■ CLOSING—The socket is closed. The Stinger unit is waiting for acknowledgment that the remote end has shut down. ■ LAST_ACK—The remote end has shut down and closed the socket, and it is waiting for an acknowledgment from the Stinger unit. ■ FIN_WAIT_2—The socket is closed, and the Stinger unit is waiting for the remote end to shut down the connection. ■ TIME_WAIT—The socket is closed, and the Stinger unit is waiting for a remote-shutdown retransmission.

For UDP, `netstat` reports the following services:

Service	UDP port number
Route	520
Echo	7
NTP	123
SNMP	161
SNMPTrap	162

For TCP, `netstat` reports the following services:

Service	TCP port number
telnet	23

Example The Stinger interface table shows the address of each interface. To display the Stinger interface table, specify the `-i` option:

```
admin> netstat -i
```

The entries in the interface table associated with the Stinger Ethernet interfaces use the following naming convention, where `ie` stands for `interface ethernet`:

`ie[`*shelf*`]-[`*slot*`]-[`*item*`]`

For example, the following output shows a four-port Ethernet module in slot 13:

```
Name      MTU  Net/Dest          Address         Ipkts  Ierr Opkts  Oerr
ie0       1500 12.65.212.0/24    12.65.212.227  107219    0 54351     0
lo0       1500 127.0.0.1/32      127.0.0.1        4867    0  4867     0
rj0       1500 127.0.0.2/32      127.0.0.2           0    0     0     0
bh0       1500 127.0.0.3/32      127.0.0.3           0    0     0     0
wan4      1500 10.122.99.1       -                   0    0     0     0
ie1-12-1 1500 11.168.6.0/24     11.168.6.227   430276  651     0     0
ie1-12-2 1500 10.122.72.0/24    10.122.72.1         0    0     0  3144
ie1-12-3 1500 10.122.73.0/24    10.122.73.1         0    0  3142     0
ie1-12-4  1500 10.122.74.0/24      10.122.74.1          0    0  3141     0
```

The fields in the interface table contain the following information:

Field	Description
Name	Name of the interface must be one of the following: ■ `ie0` or `ie[`*shelf*`]-[`*slot*`]-[`*item*`]`—Indicates an Ethernet interface. ■ `lo0`—Indicates a loopback interface. ■ `rj0`—Indicates a reject interface, used in network summarization. ■ `bh0`—Indicates a blackhole interface, used in network summarization. (Blackhole routes are used to ensure that illegal internet traffic does not pass a firewall.) ■ `wanN`—Indicates a WAN connection, displayed in this report as it becomes active. ■ `wanabe`—Indicates an inactive RADIUS dialout profile.
MTU	Maximum transmission unit, the maximum packet size allowed on the interface.
Net/Dest	Network or the target host this interface can reach.
Address	Address of this interface.
Ipkts	Number of packets received.
Ierr	Number of packets that contain errors.
Opkts	Number of packets transmitted.
Oerr	Number of transmitted packets that contain errors.

Example To display the routing table, specify the **-r** option. For example:

```
admin> netstat -r
Destination         Gateway         IF         Flg    Pref  Metric Use       Age
0.0.0.0/0           206.65.212.1    ie0        SG      100   1     4891       48630
10.0.0.0/24         11.168.6.249    ie1-12-1   RGT     100   3        0        9236
10.0.100.0/24       11.168.6.86     ie1-12-1   RGT     100   2        0       48601
10.0.200.0/24       11.168.6.86     ie1-12-1   RGT     100   2        0       48601
10.122.72.0/24      -               ie1-12-2   C         0   0     3141       48630
10.122.72.1/32      -               lo0        CP        0   0        0       48630
10.122.73.0/24      -               ie1-12-3   C         0   0     3140       48630
10.122.73.1/32      -               lo0        CP        0   0        0       48630
10.122.74.1/32      -               lo0        CP        0   0        0       48630
10.122.99.0/24      10.122.99.1     wan4       SG      100   7        0       48630
10.122.99.1/32      10.122.99.1     wan4       S       100   7        1       48630
127.0.0.1/32        -               local      CP        0   0        0       48672
127.0.0.2/32        -               rj0        CP        0   0        0       48672
127.0.0.3/32        -               bh0        CP        0   0        0       48672
11.0.2.0/24         11.168.6.249    ie1-12-1   RGT     100   2        0       48626
11.168.6.0/24       -               ie1-12-1   C         0   0    14589       48630
11.168.6.0/24       11.168.6.116    ie1-12-1   *RGTM   100   8        0       48606
11.168.6.0/24       11.168.6.142    ie1-12-1   *RGTM   100   8        0       48610
11.168.6.0/24       11.168.6.96     ie1-12-1   *RGTM   100   8        0       48624
```

The fields in the routing table contain the following information:

Field	Description
Destination	Route's target address. To send a packet to this address, the Stinger unit uses this route. If the target address appears more than once in the routing table, the Stinger unit uses the most specific route (having the largest subnet mask) that matches that address.
Gateway	Next hop router that can forward packets to the given destination. Direct routes (without a gateway) show a hyphen in this field.

Field	Description
IF	Name of the interface through which to send packets over this route: ■ ie0 or ie[*shelf*]-[*slot*]-[*item*]—Indicates an Ethernet interface. ■ lo0—Indicates a loopback interface. ■ rj0—Indicates a reject interface, used in network summarization. ■ bh0—Indicates a blackhole interface, used in network summarization. (Blackhole routes are used to ensure that illegal internet traffic does not pass a firewall). ■ wanN—Indicates a WAN connection, entered as it becomes active. ■ wanabe—Indicates an inactive RADIUS dialout profile. ■ local—Indicates a single route targeted at the local machine.
Flg	One or more of the following flags: ■ C—A directly connected route, such as Ethernet ■ I—An Internet Control Message Protocol (ICMP) redirect dynamic route ■ N—A route placed in the table via SNMP MIB II ■ R—A route learned from RIP ■ r—A transient RADIUS-like route ■ S —A static route ■ ?—A route of unknown origin, which indicates an error ■ G—An indirect route via a gateway ■ P—A private route ■ T—A temporary route ■ M—A multipath route ■ *—A backup static route for a transient RADIUS-like route
Pref	Preference value. See the description of the preference parameter for information about defaults for route preferences.
Metric	RIP-style metric for the route, with a range of 0 through 16.
Use	Number of times the route was referenced since it was created. (Many of these references are internal, so this is not a count of the number of packets sent over this route.)
Age	Age of the route in seconds. RIP and ICMP entries are aged once every 10 seconds.

Example You can include identifiers in the command line to display IP, UDP, TCP, ICMP, and Internet Group Membership Protocol (IGMP) protocol statistics. The system displays TCP statistics collected from line modules as well as the shelf controller. All other types of statistics are collected for the shelf controller only. The following example uses the `tcp` identifier:

```
admin> netstat -s tcp
tcp:
        17 active opens
        160 passive opens
        0 connect attempts failed
        9 connections were reset
        4294967215 connections currently established
        75620 segments received
        82645 segments transmitted
        313 segments retransmitted
        1 active closes
        1 passive closes
```

The following sample output shows 40 packets received with IP header errors:

```
admin> netstat -s igmp
igmp:
        4067 packets received
        3814 query packets received
        9 leave packets received
        40 hdr error packets received
Alert
        292 packets transmitted
        89 query packets sent
        175 response packets sent
        28 leave packets sent
 0 disconnects while awaiting transmission
```

See Also `nslookup, ping, traceroute`

new

Description Creates an instance of the specified profile type and makes the new profile the working profile. You can also use the command to assign the profile its index value.

To write a new profile, you must uniquely identify it by setting its index field. In a profile listing, a parameter name followed by an asterisk (*) identifies the index field. In most cases, the profile's parameters are assigned default values.

Permission level `system`

Usage `new` *`profile-type`* [*`profile-index`*][`-f`]

Command element	Description
`profile-type`	Type of profile you want to create.
`profile-index`	Index value of the profile.

Command element	Description
`-f`	Do not prompt for confirmation when issuing a `new` command that would overwrite the unsaved contents of the edit buffer.

If you create a new indexed profile without using the *`profile-index`* argument, a default index (usually null or zero) is used. For example:

Profile type	Default index
`user`	`""`
`serial`	`{ any-shelf any-slot 0 }`
`ethernet`	`{ any-shelf any-slot 0 }`
`ip-interface`	`{ { any-shelf any-slot 0 } 0 }`

If you specify the *`profile-index`* on the command line, it is validated before use. For example:

```
admin> new sdsl {12 2 3}
error: bad index: unknown value "12"

admin> new system foo
error: profile has no index
```

If you specify a valid index, it is applied to the new profile, which is read into the edit buffer. For example:

```
admin> new sdsl {1 2 3}
SDSL/{ shelf-1 slot-2 3 } read

admin> list
[in SDSL/{ shelf-1 slot-2 3 } (new)]
name=""
physical-address*={ shelf-1 slot-2 3 }
enabled=no
line-config={ 0 0 static { any-shelf any-slot 0 } }
```

Example To create a new `connection` profile called `tim`:

```
admin> new conn tim
CONNECTION/tim read

admin> list
[in CONNECTION/tim (new)]
station*=tim
active=no
encapsulation-protocol=atm
called-number-type=national
dial-number=""
clid=""
ip-options={ yes yes 0.0.0.0/0 0.0.0.0/0 7 100 255 no no 0 +
session-options={ "" "" no 120 no-idle 120 "" }
telco-options={ ans-and-orig no off 1 no no 56k-restricted 0 +
```

```
usrRad-options={ global 0.0.0.0 1646 "" 1 acct-base-10 }
calledNumber=""

admin> write
CONNECTION/tim written
```

Dependencies The index you choose might affect the factory default values set in the profile. For example, if you specify the profile-index `default` for a `user` profile, the factory default permission settings are as follows:

```
admin> new user default
USER/default read

admin> list
[in USER/default (new)]
name*=default
password=""
active-enabled=yes
allow-termserv=no
allow-system=no
allow-diagnostic=no
allow-update=no
allow-password=no
allow-code=no
allow-debug=no
idle-logout=0
prompt=*
default-status=no
top-status=general-info
bottom-status=log-window
left-status=connection-list
use-scroll-regions=no
log-display-level=none
```

If you specify `admin` instead, the factory-default permissions are set as follows:

```
admin> new user admin
USER/admin read

admin> list
[in USER/admin (new)]
name*=admin
password=MyPW
active-enabled=yes
allow-termserv=yes
allow-system=yes
allow-diagnostic=yes
allow-update=yes
allow-password=no
allow-code=yes
allow-debug=no
idle-logout=0
prompt=*
default-status=no
top-status=general-info
bottom-status=log-window
```

```
left-status=connection-list
use-scroll-regions=no
log-display-level=error
```

See Also `delete, list, read, set, write`

nslookup

Description Resolves the IP address of a specified hostname by performing a Domain Name System (DNS) lookup. The `ip-global` profile must be configured with the address of at least one DNS server.

Permission level `diagnostic`

Usage `nslookup` *`hostname`*

Command element	Description
`hostname`	The hostname for which you want to obtain an IP address.

Example To look up a host's IP address in DNS:

```
admin> nslookup host-231
Resolving host host-231.
IP address for host host-231 is 10.65.12.231.
```

See Also `netstat`

nvram

Description Provides functions for managing or clearing onboard nonvolatile RAM (NVRAM).

The onboard NVRAM stores the system configuration. Clearing NVRAM initializes the system. If a `default.cfg` is saved to flash memory, the system loads the configuration to NVRAM, which allows minimal configuration. If the system finds no `default.cfg` file, it starts up unconfigured, just as it was when you first installed it. You can then restore the configuration from a recent backup.

Permission level `update`

Usage `nvram [[[-f] [-r primary_controller | secondary_controller | both_controllers]] |-u|-c|-e|-g|-?]]`

Command element	Description
No options	Clear NVRAM and reset the unit.
`-f`	Clear NVRAM without prompting for confirmation.

Command element	Description
`-r`	Specify the control module(s) to clear and reboot: ■ `primary_controller`—Primary control module. ■ `secondary_controller`—Secondary control module. ■ `both_controllers` (the default)—Both control modules.
`-u`	Display NVRAM usage statistics.
`-c`	Compact the NVRAM storage.
`-e`	Enable extended profiling.
`-g`	Generate CDT tree statistic for NVRAM. For internal use only.
`-?`	Display a usage summary.

Example To display memory usage information:

```
admin> nvram -u
NVRAM seg[0]:start 14000098 size 258040 avail 191680 cmpct 0
```

To clear NVRAM and reset the unit:

```
admin> nvram
Clear configuration and reboot? [y/n]
```

Dependencies You must reset the Stinger unit after clearing NVRAM and reloading a configuration.

See Also `load`, `reset`, `save`

O

oam

Description Enables you to send F4 and F5 operations, administration and maintenance (OAM) connectivity and loopback testing cells from a port on a Stinger trunk module or line interface module (LIM) to a remote DSL port—for example, to a customer premises equipment (CPE) device.

F4 OAM segment and end-to-end loopback testing is supported only on Stinger trunk modules.

Permission level `diagnostic`

Usage `oam -e|-c|-l|-p|-L|-C [slot] [port] [vpi] [vci]`

Command element	Description
`-e`	Display details about the continuity check status.
`-c`	Run an OAM F5 continuity test.
`-l`	Run an OAM F5 loopback test.

Command element	Description
`-p`	Turn OAM internal debug on or off.
`-L`	Run an OAM F4 loopback test.
`-C`	Run an OAM F4 continuity test.
`slot`	Slot number.
`port`	Port number on a CPE device.
`vpi`	Virtual path identifier (VPI) number.
`vci`	Virtual channel identifier (VCI) number.
`s`	Run a segment test. This option must be followed by a value for the *`n`* variable.
`n`	Number of consecutive segments in the segment test.
`-q fault loc`	Display entries with LOC defects.
`-q cc generating`	Display OAM entries showing CC cell generation.
`-q cc monitoring`	Display OAM entries for monitoring CC cells.
`-q cc activating`	Display OAM entries in the activating state.
`-q cc deactivating`	Display OAM entries in the deactivating state.

Example To send 64 consecutive segment F4 loopback cells to VPI 15 on DSL port 2, enter the `oam` command using syntax 2:

```
admin> oam -L 2 15 s 64
```

To display additional information about the outgoing and incoming segment test cells:

```
admin> oam -p
```

To display all active OAM channels:

```
admin> oam -e
OAM Entry list
Entry=826ef120, Linear Port=2003 vpi=0, vci=3 state=Up loopTx=0 loopRx=0
Segment Continuity=READY  End2End Continuity=READY isVpc=No
Entry=826ef3b0, Linear Port=2003 vpi=0, vci=4 state=Up loopTx=0 loopRx=0
Segment Continuity=READY  End2End Continuity=READY isVpc=No
Entry=826eee50, Linear Port=2003 vpi=0, vci=32 state=Up loopTx=0 loopRx=0
Segment Continuity=READY  End2End Continuity=READY isVpc=No

Total Active Oam Channel=3
```

See Also `oamloop`

oamloop

Description Sends Asynchronous Transfer Mode (ATM) operation-and-maintenance (OAM) loopback cells on an ATM interface.

Permission level `diagnostic`

Usage `oamloop -e|-s [-c count][-i sec] shelf slot vpi vci`

Command element	Description
`-e`	(End-to-end). Transmit an end-to-end OAM loop cell, to be looped by the user connection point.
`-s`	(Segment). Transmit a segment OAM loop cell, to be looped by the first network connection point.
`-c count`	Transmit the specified number of cells. If this argument is not specified, the count defaults to 0 (zero), which means that the cells are transmitted continuously until the administrator sends an interrupt by pressing Ctrl-C.
`-i sec`	Transmit the cells at the specified interval in seconds. If this argument is not specified, the interval defaults to 1 second.
shelf	Shelf on which the trunk module is located.
slot	Slot in which the trunk module is located.
vpi	Virtual path identifier (VPI) on which to transmit the looped-back cells.
vci	Virtual channel identifier (VCI) on which to send the looped-back cells.

Example Following is a sample `oamloop` command line and output:

```
admin> oamloop -c 10 -e 1 2 1 32
Received our End2End OAM loopback cell, Id=9
Received our End2End OAM loopback cell, Id=10
Received our End2End OAM loopback cell, Id=11
Received our End2End OAM loopback cell, Id=12
Received our End2End OAM loopback cell, Id=13
Received our End2End OAM loopback cell, Id=14
Received our End2End OAM loopback cell, Id=15
Received our End2End OAM loopback cell, Id=16
Received our End2End OAM loopback cell, Id=17
Received our End2End OAM loopback cell, Id=18
--- OAM loop statistics ---
10 cells transmitted, 10 cells received, 0% cell loss
```

See Also `oam`

open

Description Sets up a `telnet`-like session across the control bus to a trunk module or line interface module (LIM) so that you can enter commands on that module. Each trunk module and LIM has its own processor, memory, operating system, and set of debug commands.

Permission level `diagnostic`

Usage `open` *`shelf`* [*`slot`*]

Command element	Description
`shelf`	Shelf ID number. 1 in a Stinger host or standalone unit. 2-7 for a Stinger MRT slave unit. 2-25 for a Stinger Compact Remote slave unit
`slot`	Number of the expansion slot you want to diagnose (1-16).

Example To open a session with a DS3-ATM trunk module installed in slot 1:

```
admin> open 1 1
```

The prompt changes to show your location, and you can list the available commands:

```
ds3-1/2> ?
?                               ( user )
auth                            ( user )
cbcardif                        ( debug )
checkd                          ( debug )
clear                           ( user )
clock-source                    ( diagnostic )
debug                           ( diagnostic )
debugd                          ( debug )
display                         ( debug )
dp-ram-display                  ( debug )
dpram-test                      ( debug )
dspBypassClients                ( debug )
dspDial                         ( debug )
dspSetDddTimeslot               ( debug )
fill                            ( debug )
frreset                         ( debug )
gdb                             ( debug )
help                            ( user )
lifDebug                        ( debug )
logdebug                        ( debug )
logtest                         ( debug )
mibcbagt                        ( debug )
mibcbreq                        ( debug )
mibmgr                          ( debug )
modify                          ( debug )
nailedState                     ( debug )
nlcb                            ( debug )
```

```
open                          ( diagnostic )
quit                          ( user )
revision                      ( debug )
slots                         ( debug )
stackLimit                    ( debug )
stackUsage                    ( debug )
tdm                           ( debug )
timedMsgTest                  ( debug )
tprofmgr                      ( debug )
tss                           ( debug )
update                        ( debug )
version                       ( system )
whoami                       ( user )
```

To return to the control module:

```
ds3-1/2> quit
```

See Also `show, slot`

ospf

Description Displays information related to Open Shortest Path First (OSPF) routing, including link state advertisements (LSAs), border routers' routing tables, and the OSPF areas, interfaces, statistics, and routing table. You can use the `ospf` command even when OSPF is disabled.

Permission level `system`

Usage `ospf [`*`options`*`]`

The *options* can be one or more of the following:

Command element	Description
`?`	Display help information.
size	Display size of the OSPF routing table.
areas	Display OSPF areas.
stats	Display OSPF statistics.
`intf [`*`ip_addr`*`]`	Display information about one or more OSPF interfaces.
`translators`	Display the router IDs of not-so-stubby area (NSSA) border routers.

Command element	Description
`lsa` *`area ls-type ls-id ls-orig`*	Display detailed information about OSPF LSAs. ■ *`area`* is the area ID. ■ *`ls-type`* is the LSA type. You can specify one of the following options for *`ls-type`*: – `rtr` (type 1) is a router-LSA that describes the collected states of the router's interfaces. – `net` (type 2) is network-LSA that describes the set of routers attached to the network. – `sum` (types 3 and 4) describes routes to networks in remote areas, or autonomous system boundary routers. ■ *`ls-id`* is the target address of the router. ■ *`ls-orig`* is the address of the advertising router.
`lsdb` [*`area`*]	Display an OSPF link-state database summary for an area. If you do not specify the *`area`* option, the summary for the first configured area (or for the only defined area) is displayed. If you specify the *`area`* option, the unit displays a summary for the specified area. The area option is meaningful if the unit is operating as an area border router (ABR).
`nbrs` [*`ip_addr`*]	Display information about one or more OSPF neighbors.
`routers`	Display OSPF router information.
`ext`	Display OSPF external autonomous system advertisements.
`rtab`	Display OSPF routing table.
`database` *`ext`*	Display OSPF database summary.
`internal`	Display OSPF internal routes.

Example *Displaying the size of the OSPF routing table*

To display information about the size of the OSPF routing table, include the `size` option with the `ospf` command. For example:

```
admin> ospf size
    # Router-LSAs:                2
    # Network-LSAs:               0
    # Summary-LSAs:               0
    # Summary Router-LSAs:        0
    # AS External-LSAs (type-5):  1
    # AS External-LSAs (type-7):  0

    # Intra-area routes:      4
    # Inter-area routes:      0
    # Type 1 external routes: 0
    # Type 2 external routes: 0
```

The fields in the output contain the following information:

Field	Specifies
Router-LSAs	Number of router link advertisements known as type 1 LSAs.
Network-LSAs	Number of network link advertisements known as type 2 LSAs.
Summary-LSAs	Number of summary link advertisements known as type 3 LSAs. Type 3 LSAs describe routes to networks.
Summary Router-LSAs	Number of summary link advertisements known as type 4 LSAs. Type 4 LSAs describe routes to autonomous system boundary routers.
AS External-LSAs (type-5)	Number of autonomous system external (ASE) link advertisements known as type 5 LSAs.
AS External-LSAs (type-7)	Number of ASE-7 link advertisements known as type 7 LSAs.
Intra-area routes	Number of routes that have a destination within the area.
Inter-area routes	Number of routes that have a destination outside the area.
Type 1 external routes	Number of external type 1 routes that are typically in the scope of OSPF-IGP.
Type 2 external routes	Number of external typ -2 routes that are typically outside the scope of OSPF-IGP.

Example *Displaying OSPF areas*

To display information about OSPF areas, include the `areas` option with the `ospf` command. For example:

```
admin> ospf areas
Area ID Authentication Area Type #ifcs  #nets  #rtrs  #brdrs  #intnr
0.0.0.0 Simple-passwd  Normal     1      0      2      0       3
```

The fields in the output contain the following information:

Field	Specifies
Area ID	Area number in dotted decimal format.
Authentication	Type of authentication: `Simple-passwd`, `MD5`, or `Null`.
Area Type	Type of OSPF area: `Normal`, `Stub`, or `NSSA`.
#ifcs	Number of Stinger unit interfaces specified in the area.
#nets	Number of reachable networks in the area.
#rtrs	Number of reachable routers in the area.

Field	Specifies
#brdrs	Number of reachable ABRs in the area.
#intnr	Number of reachable internal routers in the area.

Example *Displaying general information about OSPF*

To display general information about OSPF, include the stats option with the ospf command. For example:

```
admin> ospf stats
       OSPF version:             2
       OSPF Router ID:           200.192.192.2
       AS boundary capability:   Yes
Attached areas:           1   Estimated # ext.(5) routes:      300
OSPF packets rcvd:    94565   OSPF packets rcvd w/ errs:         0
Transit nodes allocated:   3058   Transit nodes freed:        3056
LS adv. allocated:         1529   LS adv. freed:              1528
Queue headers alloc:         32   Queue headers avail:          32
# Dijkstra runs:              4   Incremental summ. updates:     0
Incremental VL updates:       0   Buffer alloc failures:         0
Multicast pkts sent:      94595   Unicast pkts sent:             5
LS adv. aged out:             0   LS adv. flushed:               0
Incremental ext.(5) updates:  0   Incremental ext.(7) updates:   0
External (type-5) LSA database -
Current state:                Normal
Number of LSAs:               1
Number of overflows:          0
```

The fields in the output contain the following information:

Field	Specifies
OSPF version	Version of the OSPF protocols running.
OSPF Router ID	IP address assigned to the Stinger unit, which is typically the address specified for the Ethernet interface.
AS boundary capability	Yes if the Stinger unit functions as an autonomous system border router (ASBR) or No if it does not function as an ASBR.
Attached areas	Number of areas to which this Stinger unit attaches.
Estimated # ext.(5) routes	Number of ASE-5 routes that the Stinger unit can maintain before it goes into an overload state.
OSPF packets rcvd	Total number of OSPF packets received by the Stinger unit.
OSPF packets rcvd w/ errs	Total number of OSPF errored packets received by the Stinger unit.

Field	Specifies
`Transit nodes allocated`	Allocated transit nodes generated only by router LSAs (type 1) and network LSAs (type 2).
`Transit nodes freed`	Freed transit nodes generated only by router LSAs (type 1) and network LSAs (type 2).
`LS adv. allocated`	Number of LSAs allocated.
`LS adv. freed`	Number of LSAs freed.
`Queue headers alloc`	Number of queue headers allocated. LSAs can reside in multiple queues. Queue headers are the elements of the queues that contain the pointer to the LSA.
`Queue headers avail`	Available memory for queue headers. To prevent memory fragmentation, the Stinger unit allocates memory in blocks. The Stinger unit allocates queue headers from the memory blocks. When the unit frees all queue headers from a specific memory block, the Stinger unit returns the block to the pool of available memory blocks.
`# Dijkstra runs`	Number of times that the Stinger unit has run the Dijkstra algorithm (short path computation).
`Incremental summ. updates`	Number of summary updates that the Stinger unit runs when small changes cause generation of summary LSAs (type 3) and summary router LSAs (type 4).
`Incremental VL updates`	Number of incremental virtual link updates that the Stinger unit performs.
`Buffer alloc failures`	Number of buffer allocation problems that the Stinger unit has detected and from which it has recovered.
`Multicast pkts sent`	Number of multicast packets sent by OSPF.
`Unicast pkts sent`	Number of unicast packets sent by OSPF.
`LS adv. aged out`	Number of LSAs that the Stinger unit has aged and removed from its tables.
`LS adv. flushed`	Number of LSAs that the Stinger unit has flushed.
`Incremental ext.(5) updates`	Number of incremental ASE-5 updates.
`Incremental ext.(7) updates`	Number of incremental ASE-7 updates.
`Current state`	State of the external (type 5) LSA database: `Normal` or `Overload`.
`Number of LSAs`	Number of LSAs in the external (type 5) LSA database.

Field	Specifies
Number of overflows	Number of ASE-5s that exceeded the limit of the database.

Example *Displaying summarized information about OSPF interfaces*

To display summarized information about OSPF interfaces:

```
admin> ospf intf
Ifc Address    Phys    Assoc. Area  Type   State   #nbrs #adjs DInt
200.194.194.2  phani   0.0.0.0      P-P    P-P      1     1    120
```

The fields in the output contain the following information:

Field	Specifies
Ifc Address	Address assigned to the Stinger unit's Ethernet interface. To identify WAN links, use the Type and State fields.
Phys	Name of the interface or the connection profile for WAN links.
Assoc. Area	Area in which the interface resides.
Type	Point-to-point (P-P) or broadcast (Bcast). WAN links are P-P links.
State	State of the link according to RFC 1583. There are many possible states, and not all states apply to all interfaces.
#nbrs	Number of neighbors of the interface.
#adjs	Number of adjacencies on the interface.
DInt	Number of seconds that the Stinger unit waits for a router update before removing the router's entry from its table. The interval is called the dead interval.

Example *Displaying information about a specific OSPF interface*

To display detailed information for a specific interface, use the following syntax:

```
ospf intf ip_addr
```

For example:

```
admin> ospf intf 200.194.194.2
              Interface address:      200.194.194.2
              Attached area:          0.0.0.0
              Physical interface:     phani (wan1)
              Interface mask:         255.255.255.255
              Interface type:         P-P
              State:                  (0x8) P-P
              Designated Router:      0.0.0.0
              Backup DR:              0.0.0.0
              Remote Address:         200.194.194.3
DR Priority:       5  Hello interval:  30   Rxmt interval:  5
Dead interval:   120  TX delay:         1   Poll interval:  0
Max pkt size:   1500  TOS 0 cost:      10
```

```
# Neighbors:       1  # Adjacencies:    1   # Full adjs.:   1
# Mcast floods: 1856  # Mcast acks:  1855
```

The fields in the output contain the following information:

Field	Specifies
`Interface Address`	IP address of the Stinger unit's Ethernet interface.
`Attached Area`	Area in which the interface resides.
`Physical interface`	Name of the interface or the `connection` profile for WAN links.
`Interface type`	Point-to-point (`P-P`) or broadcast (`Bcast`).
`State`	State of the link according to RFC 1583. There are many possible states, and not all states apply to all interfaces.
`Designated Router`	IP address of the designated router for the interface.
`Backup DR`	IP address of the backup designated router for the interface.
`Remote Address`	IP address of the remote end of a point-to-point (WAN) link.
`DR Priority`	Priority of the designated router.
`Hello interval`	Interval in seconds that the Stinger unit sends `hello` packets.
`Rxmt interval`	Retransmission interval.
`Dead interval`	Number of seconds that the Stinger unit waits for a router update before removing the router's entry from its table.
`TX delay`	Interface transmission delay.
`Poll interval`	Poll interval of nonbroadcast multiaccess networks.
`Max pkt size`	Maximum size of a packet that the Stinger unit can send to the interface.
`TOS 0 cost`	Type of service (TOS) normal (`0`) cost.
`# neighbors`	Number of neighbors.
`# adjacencies`	Number of adjacencies.
`# Full adjs.`	Number of fully formed adjacencies.
`# Mcast floods`	Number of multicast floods on the interface.
`# Mcast acks`	Number of multicast acknowledgments on the interface.

Example *Listing the router IDs of NSSA border routers that are translating type 7 LSAs to type 5 LSAs.*

To list the router ID enter the `ospf translators` command. For example:

```
admin> ospf translators
Area ID     Router ID
0.0.0.1     10.105.0.13
0.0.0.2     12.1.1.1
```

Example *Displaying OSPF link state advertisements (LSAs)*

To specify an LSA to be expanded, use the following format for the `ospf` command:

`ospf lsa` *`area ls-type ls-id ls-orig`*

The command requires that you include the first four fields of the LSA as listed in the database. You can select the first four fields and paste them in after typing the command.

For example, to show an expanded view of an autonomous system external (ASE) LSA for area `0.0.0.0`, where the target address of the router is `10.5.2.160` and the address of the advertising router is `10.5.2.162`:

```
admin> ospf lsa 0.0.0.0 ase 10.5.2.160 10.5.2.162
LSA  type: ASE ls id: 10.5.2.160 adv rtr: 110.5.2.162 age: 568
          seq #: 80000037 cksum: 0xfffa
          Net mask: 255.255.255.255 Tos 0 metric: 10 E type: 1
          Forwarding Address: 0.0.0.0 Tag: c0000000
```

The fields in the output contain the following information:

Field	Specifies
`LSA type`	Type of LSA.
`ls id`	Target address of the router.
`adv rtr`	Address of the advertising router.
`age`	Age of the route in seconds.
`seq #`	Number that begins with 80000000 and increments by one for each LSA received.
`cksum`	Checksum for the LSA.
`Net mask`	Subnet mask of the LSA.
`Tos`	Type of service (TOS) for the LSA.
`metric`	Cost of the link, not of a route. The cost of a route is the sum of all intervening links, including the cost of the connected route.
`E type`	External type of the LSA indicating either 1 (type 1) or 2 (type 2).
`Forwarding Address`	Forwarding address of the LSA (described in RFC 1583).
`Tag`	Tag of the LSA (described in the OSFP RFC).

Example *Displaying an expanded view of a router LSA*

To show an expanded view of a router LSA, use the `rtr` option. For example:

```
admin> ospf lsa 0.0.0.0 rtr 202.1.1.1 202.1.1.1
        LS age:      66
        LS options:  (0x2) E
        LS type:     1
        LS ID (destination): 202.1.1.1
        LS originator:       202.1.1.1
        LS sequence no:      0x80000399
        LS checksum:         0xb449
        LS length:           48
        Router type:     (0x2) ASBR
        # router ifcs:   2
                Link ID:          10.105.0.8
                Link Data:        10.105.0.7
                Interface type:   (2) TrnsNetwork
                        No. of metrics: 0
                        TOS 0 metric:   10 (0)
                Link ID:          10.123.0.6
                Link Data:        10.123.0.7
                Interface type:   (2) TrnsNetwork
                        No. of metrics: 0
                        TOS 0 metric:   10 (0)
```

The fields in the output contain the following information:

Field	Specifies
`LS age`	Age of the LSA in seconds.
`LS options`	Optional functions associated with the LSA. When `E` is specified, an OSPF area can be configured as a stub area. When `T` is specified, routes only for type of service (TOS) `0` are calculated.
`LS type`	Type of link as defined in RFC 1583: ■ Type 1 (`RTR`) are router-LSAs that describe the collected states of the router's interfaces. ■ Type 2 (`NET`) are network-LSAs that describe the set of routers attached to the network. ■ Types 3 and 4 (`SUM`) describe routes to networks in remote areas, or autonomous system boundary routers. ■ Type 5 (`ASE`) are autonomous system external (ASE) LSAs that describe routes to destinations external to the autonomous system. A default route for the autonomous system can also be described by an ASE LSA.
`LS ID`	IP address of the advertisement's destination.
`LS originator`	IP address of the advertisement's source.

Field	Specifies
LS sequence no	Number that begins with 80000000 and increments by one for each LSA. It is used for detecting old and duplicate LSAs.
LS checksum	A checksum covering the entire packet, except for the 64-bit authentication field.
LS length	Length of the LSA in bytes.
Router type	Type of router, either ASBR or ABR.
# router ifcs	Number of interfaces on the router.
Link ID	IP address of the associated router interface.
Link Data	Name of the device on the other side of the link.
Interface type	Type of interface: ■ TrnsNetwork (transit network)—A network that carries traffic that does not have its source or destination in the network itself. ■ Stub (stub network)—A network in which all external routes are summarized by a default route. ■ P-P (point-to-point)—A link over a serial line.
No. of metrics	Metric for TOS 0.
TOS	Type of service (TOS) for the LSA.
metric	Cost of the link, not of a route. The cost of a route is the sum of all intervening links, including the cost of the connected route.

Example *Displaying an expanded view of a network LSA*

To show an expanded view of a network LSA, include the net option. For example:

```
admin> ospf lsa 0.0.0.0 net 100.103.100.204 10.103.0.204
        LS age:      814
        LS options:  (0x2) E
        LS type:     2
        LS ID (destination): 100.103.100.204
        LS originator:       10.103.0.204
        LS sequence no:      0x80000027
        LS checksum:         0x8f32
        LS length:           36
        Network mask:        255.255.0.0
                Attached Router: 10.103.0.204     (1)
                Attached Router: 10.103.0.254     (1)
                Attached Router: 10.123.0.254     (1)
```

The fields in the output contain the following information:

Field	Specifies
LS age	Age of the LSA in seconds.
LS options	Optional functions associated with the LSA. When E is specified, entire OSPF areas can be configured as stub areas. When T is specified, routes only for TOS 0 are calculated.
LS type	Type of link as defined in RFC 1583: ■ Type 1 (RTR) are router-LSAs that describe the collected states of the router's interfaces. ■ Type 2 (NET) are network-LSAs that describe the set of routers attached to the network. ■ Types 3 and 4 (SUM) describe routes to networks in remote areas, or autonomous system boundary routers. ■ Type 5 (ASE) are autonomous system external (ASE) LSAs that describe routes to destinations external to the autonomous system. A default route for the autonomous system can also be described by an ASE LSA.
LS ID	IP address of the advertisement's destination.
LS originator	IP address of the advertisement's source.
LS sequence no	Number that begins with 80000000 and increments by one for each LSA. It is used for detecting old and duplicate LSAs.
LS checksum	A checksum covering the entire packet, except for the 64-bit authentication field.
LS length	Length of the LSA in bytes.
Network mask	Subnet mask.
Attached Router	Another router running OSPF on the network. The number in parentheses is the cost to that router.

Example *Displaying the OSPF link-state database*

To display the link-state database for the first configured area (or for the only defined area), include the lsdb option with the ospf command. For example:

```
admin> ospf lsdb
                        Area: 0.0.0.0
Type LS ID              LS originator      Seqno        Age   Xsum
RTR  200.192.192.2      200.192.192.2      0x800005f8   696   0x6f0b
RTR  200.192.192.3      200.192.192.3      0x800005f8   163   0x6f09
               # advertisements:       2
               Checksum total:         0xde14
```

The fields in the output contain the following information:

Field	Specifies
Area	Area ID.
Type	Type of link as defined in RFC 1583: ■ Type 1 (RTR) are router-LSAs that describe the collected states of the router's interfaces. ■ Type 2 (NET) are network-LSAs that describe the set of routers attached to the network. ■ Types 3 and 4 (SUM) describe routes to networks in remote areas, or autonomous system boundary routers. ■ Type 7 are ASE-7 link advertisements that are only flooded within an NSSA.
LS ID	Specifies the target address of the route.
LS originator	Specifies the address of the advertising router.
Seqno	Indicates a hexadecimal number that begins with 80000000 and increments by one for each LSA received.
Age	Specifies the age of the route in seconds.
Xsum	Indicates the checksum of the LSA.
advertisements	Specifies the total number of entries in the link-state database.
Checksum total	Indicates the checksum of the link-state database.

You can expand each entry in the link-state database to view additional information about a particular LSA.

Example *Displaying OSPF neighbor information*

To display information about OSPF neighbors to the Stinger unit, include the nbrs options with the ospf command. For example:

```
admin> ospf nbrs
Neighbor ID     Neighbor addr  State    LSrxl DBsum LSreq Prio Ifc
200.192.192.3   200.194.194.3  Full/-   0     0     0     5    phani
```

The fields in the output contain the following information:

Field	Specifies
Neighbor ID	Address assigned to the interface. In the Stinger unit, the IP address is always the address assigned to the Ethernet interface.
Neighbor addr	IP address of the router used to reach a neighbor (often the same address as the neighbor itself).
State	State of the link-state database exchange. Full indicates that the databases are fully aligned between the Stinger unit and its neighbor.

Field	Specifies
LSrxl	Number of LSAs in the retransmission list.
DBsum	Number of LSAs in the database summary list.
LSreq	Number of LSAs in the request list.
Prio	Designated router election priority assigned to the Stinger unit.
Ifc	Interface name for the `ethernet` or `connection` profile name for the WAN.

To display information about a specific neighbor, include the neighbor's IP address specification with the `nbrs` option. For example:

```
admin> ospf nbrs 10.105.0.4
OSPF Router ID:         10.105.0.4
                Neighbor IP address:    10.105.0.4
                Neighbor State:         (0x8) 2Way
                Physical interface:     ie1-7-1 (ie1-7-1)
                DR choice:              10.105.0.8
                Backup choice:          10.105.0.49
                DR Priority:            5
  DB summ qlen:      0  LS rxmt qlen:      0  LS req qlen:       0
  Last hello:       6
  # LS rxmits:       0  # Direct acks:     0  # Dup LS rcvd:     0
  # Old LS rcvd:    0  # Dup acks rcv:   0  # Nbr losses:     0
  # Adj. resets:    0
```

The fields in the output contain the following information:

Field	Specifies
OSPF Router ID	IP address of the neighbor.
Neighbor IP address	IP address of the router used to reach the neighbor (often the same address as the neighbor itself).
Neighbor State	State of the link-state database exchange.
Physical interface	The name of the interface on which the unit and the neighbor communicate: ■ `ie0` or `ie`[*shelf*]`-`[*slot*]`-`[*item*] is an Ethernet interface. ■ `wanN` is a WAN connection, entered as it becomes active.
DR choice	IP address of the neighbor's designated router.
Backup choice	IP address of the neighbor's backup designated router.
DR Priority	Priority of the designated router.
DB summary qlen	Number of LSAs in the database summary list.
LS rxl qlen	Number of LSAs in the retransmission list.

Field	Specifies
LS req qlen	Number of LSAs in the request list.
Last hello	How long ago (in seconds) a hello packet was received.
# LS rxmits	Number of link-state update retransmissions.
# Direct acks	Number of direct acknowledgments sent.
# Dup LS rcvd	Number of duplicate LSAs received.
# Old LS rcvd	Number of old link-state updates received.
# Dup acks rcv	Number of duplicate acknowledgments received.
# Nbr losses	Number of times the neighbor went offline.
# Adj. resets	Number of times the adjacency has been re-established after a restart.

Example *Displaying OSPF routers*

To display OSPF routers, include the routers option with the ospf command. For example:

```
admin> ospf routers
DType  RType  Destination    Area      Cost    Next hop(s)     #
ASBR   OSPF   200.192.192.3  0.0.0.0   10      200.194.194.3   2
```

The fields in the output contain the following information:

Field	Specifies
DType	Internal route type.
RType	internal router type.
Destination	Router's IP address.
Area	Area in which the router resides.
Cost	Cost of the router.
Next hop(s)	Next hop in the route to the destination.
#	Number of the interface used to reach the destination.

Example *Displaying OSPF external autonomous system advertisements*

To display OSPF external autonomous system advertisements, include the ext option with the ospf command. For example:

```
admin> ospf ext
Type LS ID             LS originator     Seqno     Age   Xsum
ASE5 200.192.192.0     200.192.192.2   0x800005f6  751  0xc24d
# advertisements:      1
Checksum total:        0xc24d
```

The fields in the output contain the following information:

Field	Specifies
Type	ASE5.
LS ID	Target address of the route.
LS originator	Address of the advertising router.
Seqno	Hexadecimal number that begins with 80000000 and increments by one for each LSA received.
Age	Age of the route in seconds.
Xsum	Checksum of the LSA.
# advertisements	Total number of entries in the ASE5 database.
Checksum total	Checksum of the ASE5 database.

Example *Displaying the OSPF routing table*

To display the OSPF routing table, include the rtab option with the ospf command:

```
admin> ospf rtab
DTyp RType  Destination       Area      Cost Flags  Next hop(s)    #
RTE  FIX    200.192.192.0/24  -         1    0x82   0.0.0.170     10
RTE  OSPF   200.194.194.2/32  0.0.0.0   20   0x1    200.194.194.3  2
ASBR NONE   200.192.192.2/32  -         0    0x0    None           1
RTE  OSPF   200.192.192.2/32  0.0.0.0   0    0x1    0.0.0.170     10
RTE  OSPF   200.194.194.3/32  0.0.0.0   10   0x101  200.194.194.3  2
RTE  NONE   200.194.194.0/24  -         0    0x2    None           1
ASBR OSPF   200.192.192.3/32  0.0.0.0   10   0x100  200.194.194.3  2
RTE  OSPF   200.192.192.3/32  0.0.0.0   10   0x1    200.194.194.3  2
```

The fields in the output contain the following information:

Field	Specifies
DType	Internal route type. DType displays one of the following values: RTE (generic route), ASBR (autonomous system border route), or BR (area border route).
RType	Internal router type. RType displays one of the following values: FIX (static route), NONE, DEL (deleted), OSPF (OSPF-computed), OSE1 (type 1 external), or OSE2 (type 2 external).
Destination	Destination address and subnet mask of the route.
Area	Area ID of the route.
Cost	Cost of the route.
Flags	Hexadecimal number representing an internal flag.
Next hop(s)	Next hop in the route to the destination.
#	Number of the interface used to reach the destination.

Example *Displaying summarized OSPF database information*

To display summarized information about the OSPF database, include the `database` option with the `ospf` command. For example:

```
admin> ospf database
                        Router Link States (Area: 0.0.0.0)
Type LS ID              LS originator     Seqno     Age   Xsum
RTR  200.192.192.2      200.192.192.2   0x800005f8  783  0x6f0b
RTR  200.192.192.3      200.192.192.3   0x800005f8  250  0x6f09
               # advertisements:       2
               Checksum total:         0xde14

                        External ASE5 Link States
Type LS ID              LS originator     Seqno     Age   Xsum
ASE5 200.192.192.0      200.192.192.2   0x800005f6  783  0xc24d
               # advertisements:       1
               Checksum total:         0xc24d
```

If you specify the *ext* option, the Stinger unit displays only ASE5 LSAs.

The fields in the output contain the following information:

Field	Specifies
`Type`	Type of link as defined in RFC 1583: ■ Type 1 (`RTR`) are router-LSAs that describe the collected states of the router's interfaces. ■ Type 2 (`NET`) are network-LSAs that describe the set of routers attached to the network. ■ Types 3 and 4 (`SUM`) describe routes to networks in remote areas, or autonomous system boundary routers. ■ Type 5 (`ASE`) are autonomous system external (ASE) LSAs that describe routes to destinations external to the autonomous system. A default route for the autonomous system can also be described by an ASE LSA. ■ Type 7 are ASE-7 link advertisements that are only flooded within an NSSA.
`LS ID`	Target address of the route.
`LS originator`	Address of the advertising router.
`Seqno`	Hexadecimal number that begins with 80000000 and increments by one for each LSA received.
`Age`	Age of the route in seconds.
`Xsum`	Checksum of the LSA.
`# advertisements`	Total number of entries in the database.
`Checksum total`	Checksum of the database.

Example *Displaying internal OSPF routes*

When the Stinger unit uses the internal routes feature, it exports routes by means of the router LSA (type 1), instead of by means of the usual ASE-5. If the Stinger unit resides in a stub area and needs to export routes, it cannot use the ASE-5 method. To display internal routes, include the `internal` option with the `ospf` command. For example:

admin> **`ospf internal`**

```
               Area: 0.0.0.0
Destination    Mask              Cost
10.5.2.160     255.255.255.255     10
10.5.2.161     255.255.255.255     10
100.5.4.78     255.255.255.0       10
```

The fields in the output contain the following information:

Field	Specifies
`Area`	Name of the area.
`Destination`	Destination of the route.
`Mask`	Subnet mask for the route.
`Cost`	Cost of the route.

See Also `ospfd`

ospfd

Description Displays diagnostic information for Open Shortest Path First (OSPF) tasks.

Permission level `system`

Usage `ospfd [`*`options`*`]`

Command element	Description
`ospfd adjacency`	Display diagnostic information about OSPF adjacency formation.
`ospfd all`	Display diagnostic information about all OSPF routes.
`ospfd debug`	Display the current OSPF debug state
`ospfd events`	Display diagnostic information about OSPF events.
`ospfd flood`	Display diagnostic information about OSPF flooding.
`ospfd lsa`	Display diagnostic information about OSPF link-state advertisements (LSAs) that the unit has received and transmitted.
`ospfd log`	Write debug messages to the log.
`ospfd none`	Disable the display of all OSPF diagnostic information.

Command element	Description
`ospfd packets`	Display diagnostic information about the current exchange of OSPF packets.
`ospfd retransmission`	Display diagnostic information about OSPF retransmissions.
`ospfd route`	Display diagnostic information about the OSPF routing table.
`ospfd spf`	Display the OSPF algorithm calculations.

Example *Displaying diagnostic information about OSPF adjacency formation*

To display information about OSPF adjacency formation, use the `ospfd adjacency` command. For example:

```
admin> ospfd adjacency
OSPF-55568: State change, neighbor 8.8.8.2, new state 0x4 (Init),
event 10 (1Way)
OSPF-55568: DR/BDR election begins for ie1-34-3
OSPF-55568: Backup Designated Router, changed from 8.8.8.2 to 0.0.0.0
OSPF-55596: State change, neighbor 8.8.8.2, new state 0x8 (2Way),
event 3 (2Way)
OSPF-55596: State change, neighbor 8.8.8.2, new state 0x10 (Exstart),
event 14 (Go)
OSPF-55596: DR/BDR election begins for ie1-34-3
OSPF-55596: Backup Designated Router, changed from 0.0.0.0 to 8.8.8.2
OSPF-55596: State change, neighbor 8.8.8.2, new state 0x20 (Exchng),
event 5 (NegDn)
```

Example *Displaying information about current OSPF packet exchanges*

To display information about current OSPF packet exchanges, use the `ospfd packets` command. For example:

```
admin> ospfd packets
OSPF-254967: Received packet type 1 (Hello) from 10.105.0.2
(ie1-2-4 ie1-2-4)
OSPF-54258: Sending multicast, type 5 (LS Ack), destination 224.0.0.5
(ie1-34-3 ie1-34-3)
OSPF-54258: Sending unicast type 4 (LS Upd) dst 70.70.70.56
```

Example *Displaying information about all OSPF events occurring on the router*

To display information about all OSPF events occurring on the router, use the `ospfd events` command. For example:

```
admin> ospfd events
OSPF-54366: State change, neighbor 8.8.8.2, new state 0x1 (Down),
event 12 (IATim)
OSPF-54366: DR/BDR election begins for ie1-34-3
OSPF-54366: Backup Designated Router, changed from 8.8.8.8 to 0.0.0.0
```

Example *Displaying information about the OSPF packets being flooded*

To display information about the OSPF packets being flooded, use the `ospfd flood` command. For example:

```
admin> ospfd flood
OSPF-254224: From 10.105.0.2, new LS advertisement of age |1|: type 5
(ASE5) id 22.22.22.22 org 10.105.0.
```

Example *Displaying information by router about LSA generation*

To display information by router about LSA generation, use the `ospfd lsa` command. For example:

```
admin> ospfd lsa
iproute add 45.45.45.48/32 70.70.70.34
Route added.
OSPF-57077: Originating LS advertisement: type 5 (ASE5) id
45.45.45.48 org 80.80.80.14 of age |0|
```

Example *Displaying information about changes to the routing table*

To display information about changes to the routing table, use the `ospfd route` command. For example:

```
admin> ospfd route
OSPF-255325: Export -> [-] dst=22.22.22.22/32 gw=255.255.255.255 if=-1
cost=16
```

Example *Displaying information about OSPF algorithm calculations*

To display information about OSPF algorithm calculations, use the `ospfd spf` command. For example:

```
admin> ospfd spf
OSPF-255462: Dijkstra calculation performed, on 1 area(s)
OSPF-255462: Destination ASBR 10.105.0.2 now unreachable
```

See Also `ospf`

P

pim

Description `pim` is an administrative system command for displaying information related to protocol independent multicast (PIM) related information.

Permission level `system`

Usage `pim [ groups | rp | nbr | if [ifnum] | bsr | hash [group] ]`

Example The following command displays the bootstrap router (BSR) status immediately after writing the `ip-global` profile:

```
admin> pim bsr
Stinger BSR State : PENDING_BSR
Details of CURRENT BSR:
BSR IP Address       : 0.0.0.0
BSR Interface        : 0
BSR Priority         : 0
BSR holdtime         : 0
BSR Current Frag Tag : 0
BSR HASH masklen     : 0
```

Example The following command shows the static mapping in the group rendezvous point (RP) set for the system:

```
admin> pim rp
Group           RP-Address      RPF neighbor    Priority   holdtime
231.1.1.1/32    1.1.1.3         1.1.1.3         -           -
```

Example The following command shows the PIM neighbor across the Gigabit Ethernet interface:

```
admin> pim nbr
Neighbor        Interface    Priority     Holdtime        DR
1.1.1.10            1         100         105:96          No
```

Example The `pim groups` command displays information about all multicast groups. For example:

```
admin> pim groups

Group Addr  RP/Source Addr upJPTimer  Tree(Rpt/Spt)
223.1.1.1   192.168.101.1  40         RPT
224.4.4.4   10.10.10.10    70         RPT
```

Example The `pim if` command displays information and statistics about the specified PIM interface. For example:

```
admin> pim if 1
pimHelloIntvl      30
pimHelloHoldtime   105
pimHelloPriority   1
pimJpIntvl         60
pimJpHoldtime      210
pimLanPruneDelay   5000
pimOdDelay         2500
pimDR               FALSE
genId              22305411
PIM Statistics
4 packets received
0 bad checksum packets received
0 bad version packets received
3 hello packet received
0 join/prune packets received
0 Boot strap packets received
1 C-RP Adv packets received
```

```
5 packets transmitted
4 hello packets sent
0 join/prune packets sent
1 boot strap packets sent
```

Example The `pim hash` command displays the IP address of the best RP for a group or group range. For example:

```
admin> pim hash 234.1.1.1
Best RP for group 234.1.1.1 is 1.1.1.10
```

ping

Description Sends Internet Control Message Protocol (ICMP) Echo Request packets to the specified host as a way to verify that the host is established and the transmission path to the host is open. The host returns ICMP Echo Response packets, and the command generates statistics about the exchange.

Permission level `diagnostic`

Usage `ping [-q|-f host|-v][-c count][-i delay][-s packetsize] hostname`

Command element	Description
`-q`	Quiet. Do not display informational messages. Just display the summary lines at the beginning and end of the command.
`-f host`	Set the Don't Fragment (DF) bit in the IP header of Ping packets. Setting the DF bit enables the Stinger unit to identify the permissible datagram size, also called the path maximum transmission unit (PMTU), of the path from the remote host. If any datagram is too large to be forwarded without fragmentation by some router along the path, the router discards it and returns an ICMP Destination Unreachable message with a code that indicates fragmentation is needed and that the DF bit is set.
`-v`	Verbose. List every ICMP packet received, except Echo Response packets.
`-c count`	Send only the specified number of packets.
`-i delay`	Wait the specified number of seconds before sending the next packet. The default delay period is 1 second.
`-s packetsize`	Send the specified number of data bytes. The default size is 64 bytes, not including the 8-byte ICMP header. The minimum is 16.
hostname	The station's IP address or Domain Name System (DNS) hostname.

Example To ping a host named Host-231 on a local network:

```
admin> ping host-231
PING host-231 (10.65.12.231): 56 data bytes
64 bytes from 10.65.12.231: icmp_seq=0 ttl=255 time=0 ms
64 bytes from 10.65.12.231: icmp_seq=1 ttl=255 time=0 ms
64 bytes from 10.65.12.231: icmp_seq=2 ttl=255 time=0 ms
64 bytes from 10.65.12.231: icmp_seq=3 ttl=255 time=0 ms
64 bytes from 10.65.12.231: icmp_seq=4 ttl=255 time=0 ms
^C
--- host-231 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max=0/0/0 ms
```

Press Ctrl-C to stop.

Example To exchange only three packets, each of which contains only 16 bytes, use the ping command as follows:

```
admin> ping -c 3 -s 16 host-231
PING host-231 (10.65.12.231): 8 data bytes
16 bytes from 10.65.12.231: icmp_seq=0 ttl=255 time=0 ms
16 bytes from 10.65.12.231: icmp_seq=1 ttl=255 time=0 ms
16 bytes from 10.65.12.231: icmp_seq=2 ttl=255 time=0 ms
--- host-231 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max=0/0/0 ms
```

Example To exchange three packets and suppress the output for each exchange, use the ping command as follows:

```
admin> ping -c3 -q host-231
PING host-231 (10.65.12.231): 56 data bytes
--- host-231 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max=0/0/0 ms
```

See Also netstat, telnet, terminal-server, traceroute

pnnidisplay

Description Displays general information about the Private Network-to-Network Interface (PNNI) implementation, including internal counters.

Permission level system

Usage pnnidisplay

Example Following is sample output that shows that PNNI 1.0 is supported and that the system failed to compute routes 148 times because the destination was unreachable.

```
admin> pnnidisplay
HighestVersion          = Version1point0
LowestVersion           = Version1point0
DtlCountOriginator      = 0
```

```
DtlCountBorder           = 0
CrankbackCountOriginator = 0
CrankbackCountBorder     = 0
AltRteCountOriginator    = 0
AltRteCountBorder        = 0
RteFailCountOriginator   = 148
RteFailCountBorder       = 0
RteFailUnreachOrg        = 148
RteFailUnreachBrdr       = 0
```

The display output contains the following fields:

Field	Indicates
HighestVersion	Highest version of the PNNI protocols supported in the unit.
LowestVersion	Lowest version of the PNNI protocols supported in the unit.
DtlCountOriginator	Number of destination transit list (DTL) stacks the unit has originated and placed in PNNI signaling messages.
DtlCountBorder	Number of partial DTL stacks the unit has added into signaling messages in an entry border node.
CrankbackCount Originator	Number of connection setup messages, including DTL stacks the unit has originated, that have reversed to this node.
CrankbackCountBorder	Number of connection setup messages, including DTL stacks the unit has added in an entry border node, that have reversed to this node.
AltRteCountOriginator	Number of alternate DTL stacks the unit has computed and placed into signaling messages it originated.
AltRteCountBorder	Number of alternate partial DTL stacks the unit has computed and placed into signaling messages in an entry border node.
RteFailCountOriginator	Number of times the unit failed to compute a viable DTL stack as originator for a call. This value indicates the number of times a call was cleared due to originator routing failure.
RteFailCountBorder	Number of times the unit failed to compute a viable partial DTL stack in an entry border node for a call. This value indicates the number of times a call was either cleared or cranked back from this node due to border routing failure.

Field	Indicates
RteFailUnreachOrg	Number of times the unit failed to compute a viable DTL stack as originator because the destination was unreachable. This value indicates those calls that were cleared because the specified transit network was unreachable or the destination was unreachable.
RteFailUnreachBrdr	Number of times the unit failed to compute a viable partial DTL stack in an entry border node because the target of the path calculation was unreachable. This value indicates those calls that were cleared or cranked back because the specified transit network was unreachable or the destination was unreachable.

See Also pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnniinterfacedisplay

Description Displays specific interface details for Private Network-to-Network Interface (PNNI).

Permission level system

Usage pnniinterfacedisplay

Example Following is sample command output showing that both ports in trunk module 1 (slot 17) are configured for PNNI:

```
admin> pnniinterfacedisplay

Port  PhyAddr       IntIndex      Node          AggrToken     VpCap
801   {1 17 1}      11            1             0             Y
      Cbr Wt        RtVbr Wt      NrtVbr Wt     Abr Wt        Ubr Wt
      5040          5040          5040          5040          5040
Port  PhyAddr       IntIndex      Node          AggrToken     VpCap
802   {1 17 2}      12            1             0             Y
      Cbr Wt        RtVbr Wt      NrtVbr Wt     Abr Wt        Ubr Wt
      5040          5040          5040          5040          5040
```

The display output contains the following fields:

Field	Indicates
Port	Dedicated (nailed) group number associated with the physical port.
PhyAddr	Physical address of the trunk port in the following format: { *shelf-n slot-n item-n* }
IntIndex	Entry number in the interface table.

Field	Indicates
Node	PNNI node index. Only node index 1 is currently supported.
AggrToken	Configured aggregation token for this interface.
VpCap	Y if the interface is capable of having virtual private channels (VPCs) established within it, or N if it is not.
Cbr Wt	Configured administrative weight of this interface for the constant bit rate (CBR) service category.
RtVbr Wt	Configured administrative weight of this interface for the real-time variable bit rate (VBR) service category.
NrtVbr Wt	Configured administrative weight of this interface for the non-real-time VBR service category.
Abr Wt	Configured administrative weight of this interface for the available bit rate (ABR) service category.
Ubr Wt	Configured administrative weight of this interface for the unspecified bit rate (UBR) service category.

See Also pnnidisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnnilinkdisplay

Description Displays information about the operation of logical links attached to the local Private Network-to-Network Interface (PNNI) node and the relationship to nodes on the other end of the links. A PNNI *logical link* is a logical representation of the connectivity between two logical nodes, including the physical link and virtual path connection.

Permission level system

Usage pnnilinkdisplay [-d [*local node index* [*port Id*]]]

Command element	Description
No options	Show a summary of all PNNI logical links.
-d	Show details of all entries.
-d *local node index*	Show details for the specified local node.
-d *local node index port Id*	Show details for the specified local node and port.

Example The following output shows two logical links, one on each of the configured trunk ports in slot 17. The first link is attempting Hello protocol exchanges with its neighbors, and the second is established as a lowest-level horizontal link.

```
admin> pnnilinkdisplay

Node PortId     PhysicalAddr  IntfIndex    LinkType     HelloState
1    801       {1 17 1}       11           Unknown      Attempt

     RemoteNodeId
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00

Node PortId    PhysicalAddr   IntfIndex  LinkType      HelloState
1    802       {1 17 2}       12         Lowest horiz Twoway inside

     RemoteNodeId
     60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00
```

The display output contains the following fields:

Field	Indicates
Node	PNNI node index. Only node index 1 is currently supported.
PortId	Dedicated (nailed) group number associated with the physical port. The node index (1) and port ID identify the interface to which the link is attached.
PhysicalAddr	Physical address of the trunk port in the following format: { *shelf-n slot-n item-n* }
IntIndex	Entry number in the interface table for the interface to which the logical link corresponds. The value is valid only for LinkType values of Unknown, Lowest Level Horizontal Link, and Lowest Level Outside Link. All other link types display a zero value.
LinkType	Type of logical link. Possible types are Unknown, Lowest Level Horizontal Link, Horizontal link to/from LGN, Lowest Level Outside Link, Uplink, and Outside link, and Uplink.
HelloState	State of the Hello protocol exchange across the link or the state of the corresponding LGN Horizontal Link Hello State Machine. For uplinks, the field displays NA. Other link types have the following valid values: NA, Down, Attempt, Oneway Inside, Twoway Inside, Oneway Outside, Twoway Outside, Common Outside.
RemoteNodeId	Node ID of the neighboring node on the other end of the link. The value is valid only for LinkType values of Lowest Level Outside Link or Uplink. If the upnode has not yet been identified, or if the LinkType is Lowest Level Horizontal Link, the field displays zero.
RemotePortId	Port ID of the port at the other end of the link. If the LinkType field value is Outside link and Uplink, the field shows the port ID assigned by the lowest-level neighbor node to identify the outside link. If the remote port ID is unknown or if the LinkType is Uplink, the field displays zero.

Field	Indicates
DerAggrToken	Derived aggregation token value on the link. For horizontal links between lowest-level nodes the value is always zero.
SvccRccIndex	Switched virtual channel connection (SVCC)-based routing control channel (RCC) used to exchange information with the neighboring peer logical group node. (*Not currently supported*.)
RcvHellos	Number of Hello packets received over this link. The value is valid for horizontal and outside links between lowest-level nodes and for links of unknown type. Other link types display zero.
XmtHellos	Number of Hello packets transmitted over this link. The value is valid for horizontal and outside links between lowest-level nodes and for links of unknown type. Other link types display zero.
UpnodeId	Node ID of the neighbor node. For horizontal links, or when the link type or the neighbor's node ID is not yet known, the field displays zero.
UpnodeAtmAddress	ATM end-system address (AESA) used to establish connections to the upstream neighbor node. For horizontal links, or when the link type or upstream neighbors node ID is not yet known, the field displays zero.
CommonPeerGroupId	Peer group ID of the lowest-level common peer group in the hierarchy of the neighboring node and the local node. For horizontal links, or when the LinkTtype or common peer group is not yet known, the field displays zero.
LinkVersion	Version of PNNI routing protocol used to exchange information over this link. If communication with the neighbor node has not yet been established, or if the link type is Uplink or Link to/from LGN, the field displays Unknown.

Example With the -d option, the pnnilinkdisplay command displays additional details. For example, the following output shows that the link on the first port in slot 17 (port ID 801) has transmitted 121 Hello packets but has received no information from the remote node.

```
admin> pnnilinkdisplay -d 1 801

Node PortId     PhysicalAddr   IntIndex      LinkType       HelloState
1    801        {1 17 1}       11             Unknown        Attempt

  RemoteNodeId
  00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00

  RemotePortId   DerAggrToken   SvccRccIndex   RcvHellos      XmtHellos
  0              0              0              0              121

  UpnodeId
  00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00

  UpnodeAtmAddress
  00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

```
  CommonPeerGroupId                              LinkVersion
  00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00       1
```

See Also pnnidisplay, pnniinterfacedisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnnimapdisplay

Description Displays information about the Private Network-to-Network Interface (PNNI) hierarchy. You can use this information to find and analyze the operation of all links and nodes within the PNNI hierarchy from the perspective of a local node.

Permission level system

Usage pnnimapdisplay [-d [*local node index* [*originating node Id* [*originating port Id*]]]]

Command element	Description
No options	Display a summary of all Map entries—information about links between local and remote nodes.
-d *local node index*	Display details of all Map and Metric entries for the specified local node.
-d *local node index originating node Id*	Display details of all Map and Metric entries for the specified local node and originating node.
-d *local node index originating node Id originating port Id*	Display details of all Map and Metric entries for the specified local node, the originating node, and the originating port.

Example In the following sample output, the system reports a link on each of its active PNNI ports, with details about the originating and remote port IDs:

```
admin> pnnimapdisplay

Nd Index
1  1

OriginatingNodeId                                          OrigPortId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00  802

RemoteNodeId                                                RmtPortId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00   801

Nd Index
1  1

OriginatingNodeId                                          OrigPortId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00  801

RemoteNodeId                                                RmtPortId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00       802
```

The display output contains the following fields:

Field	Indicates
Nd	PNNI node index. Only node index 1 is currently supported.
Index	Which of the many possible maps is referred to. There can be multiple entries for nodal connectivity from a specific node and port pair, in addition to any entry for a horizontal link or uplink (link moving upward in the hierarchy).
OriginatingNodeId	PNNI node ID of the originating node.
OriginatingPortId	Port ID as assigned by the originating node.
RemoteNodeId	PNNI node ID of the remote node at the other end of the link from the originating node. If unknown, the field displays zero.
RemotePortId	Port ID as assigned by the remote node at the other end of the link from the originating node. If unknown, the field displays zero.
MapType	Type of PNNI entity being described by this entry in the map table. Valid values are HorizontalLink, Uplink, and Node.
PeerGroupId	Peer group ID of the originating node.
AggrToken	Derived aggregation token value for this link. For nodes and for horizontal links between lowest-level nodes, the field displays zero.
VPCap	A value of 1 indicates that virtual path connections (VPCs) can be established across the PNNI entity. A value of zero indicates that VPCs cannot be established.
PtseId	PNNI topology state element (PTSE) ID for the PTSE that contains the information group(s) describing the PNNI entity. The PTSE is originated by the originating node.
MetricsTag	Integer that represents a set of traffic parameters. The zero value indicates that no metrics are associated with the link or nodal connectivity.
Qos	Service categories to which this set of metrics applies.
Dir	Direction in which metrics apply (In for the in direction or Out for the out direction).
AdmWt	Administrative weight of the service category.
MCR	Maximum cell rate in cells per second for the service category.
ACR	Available cell rate in cells per second for the service category.
CTD	Maximum cell transfer delay in microseconds for the service category.
CDV	Cumulative cell delay variation in microseconds for the service category.

Field	Indicates
CLR0	Cell loss ratio for CLP=0 traffic for the service category.
CLR0+1	Cumulative cell loss ratio for CLP=0+1 traffic for the service category.

Example With the -d option, the pnnimapdisplay command displays additional details about each link. In the following example, the command displays information about the link originating on port 802, including the type of link, the routing metrics, and attributes from this node to the specified remote node:

```
admin> pnnimapdisplay -d 1

Nd Index
1  1

OriginatingNodeId                                                OrigPortId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00  802

RemoteNodeId                                                       RmtPortId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00   801

MapType         PeerGroupId
HorizontalLink  60:39:84:0f:80:01:bc:72:00:01:31:a3:99:00

AggrToken       VpCap           PtseId          MTag
0               1               4               1118482

Qos    Dir   AdmWt  MCR      ACR        CTD    CDV       CLR0   CLR0+1
Cbr    Out   5040   366792   366792     6890   Unused       8        8
Rtvbr  Out   5040   366792   366792     6890   Unused       8        8
NrtVbr Out   5040   366792   366792     6890   Unused       8        8
Abr    Out   5040   366792   366792     6890   Unused       8        8
Ubr    Out   5040   366792   366792     6890   Unused       8        8
Cbr    Out   5040   366792   366792     1574     1554       8        8
Rtvbr  Out   5040   366792   366792     1574     1554       8        8
NrtVbr Out   5040   366792   366792     1574     1554       8        8
Abr    Out   5040   366792   366792     1574     1554       8        8
Ubr    Out   5040   366792   366792     1574     1554       8        8
Cbr    Out   5040   366792   366792      674      654       8        8
Rtvbr  Out   5040   366792   366792      674      654       8        8
NrtVbr Out   5040   366792   366792      674      654       8        8
Abr    Out   5040   366792   366792      674      654       8        8
Ubr    Out   5040   366792   366792      674      654       8        8
```

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnninnbrdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnninbrdisplay

Description Displays information about the relationship between a local Private Network-to-Network Interface (PNNI) node and a neighboring node within the same peer group. A *neighbor node* is a node that is directly connected to a particular node via a logical link.

Permission level `system`

Usage `pnninbrdisplay [-d [local node index [neighbor node Id]]]`

Command element	Description
No options	Display a summary of all neighbors—the PNNI node ID and state of its neighbor peers.
`-d`	Display details of all neighbors.
`-d` *local node index*	Display details of all entries for the specified local node.
`-d` *local node index neighbor node Id*	Display details of specified local node with the neighbor node.

Example In the following sample output, the system recognizes one neighbor node, and identifies the link to that neighbor as fully established:

```
admin> pnninbrdisplay
Node PeerState      PeerPortCount
1    Full           1
     PeerNodeId
     60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00
```

The display output contains the following fields:

Field	Indicates
`Node`	PNNI node index. Only node index 1 is currently supported.
`PeerState`	State of the local node's neighboring peer state machine associated with `PeerNodeId` field. The field can display `NP Down` (neighboring peer is down), `Negotiating`, `Exchanging`, `Loading`, or `Full`.
`PeerPortCount`	Total number of ports to the neighboring peer. If the peer communicates only through a switched virtual channel connection (SVCC)-based routing control channel (RCC), the field displays zero. (*SVCC-based RCCs are currently not supported.*)
`PeerNodeId`	PNNI node ID of the neighboring peer node.
`PeerSvccRccIndex`	Identifies the SVCC-based RCC being used to communicate with the neighboring peer. (*SVCC-based RCCs are currently not supported.*) If both the local node and the neighboring peer are lowest-level nodes, the field displays zero.

Field	Indicates
PeerRcvDbSums	Number of database summary packets received from the neighboring peer.
PeerXmtDbSums	Number of database summary packets transmitted to the neighboring peer.
PeerRcvPtsps	Number of PNNI topology state packets (PTSPs) received from the neighboring peer.
PeerXmtPtsps	Number of PTSPs retransmitted to the neighboring peer.
PeerRcvPtseReq	Number of PNNI topology state element (PTSE) Request packets received from the neighboring peer.
PeerXmtPtseReq	Number of PTSE Request packets transmitted to the neighboring peer.
PeerRcvPtseAck	Number of PTSE acknowledgement (ACK) packets received from the neighboring peer.
PeerXmtPtseAck	Number of PTSE ACK packets transmitted to the neighboring peer.

Example With the **-d** option, the pnninbrdisplay command displays additional details about the neighbor node, including statistics about packet exchanges with the neighbor, as shown in the following sample output:

```
admin> pnninbrdisplay -d

Node PeerState      PeerPortCount
1    Full           1

PeerNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00

PeerSvcRccIdx  PeerRcvDbSums  PeerXmtDbSums  PeerRcvPtsps PeerXmtPtsps
0              2              3              64           64

PeerRcvPtseReq PeerXmtPtseReq PeerRcvPtseAck PeerXmtPtseAck
0              1              48             7
```

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnninodedisplay

Description Displays information about factors that affect the operation of the Private Network-to-Network Interface (PNNI) logical node. Stinger units support a single logical node, which is always a lowest-level node.

Permission level system

Usage pnninodedisplay [-d [*local node index*]]

Command element	Description
No options	Show a summary of all entries—the node and some state information.

`-d`	Show details of all entries.
`-d` *`local node index`*	Show details of the specified entry.

Example Following is sample output:

```
admin> pnninodedisplay
Node NodeId
1    60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     OperStat        DBOverload      Ptses
     UP              NO              21
```

The display output contains the following fields:

Field	Indicates
`Node`	PNNI node index. Only node index 1 is currently supported.
`Node Id`	PNNI node ID of the local node.
`OperStat`	Operational status of the node (`Up` or `Down`).
`DBOverload`	Whether the local node is currently operating in topology database overload state (`Yes` or `No`).
`Ptses`	Total number of PNNI topology state elements (PTSEs) in the node's topology database at this time.
`NodeLevel`	Level of PNNI hierarchy at which the node exists. Value is from `0` to `104`.
`LowestLevel`	Whether the node acts as a lowest-level node (`Yes` or `No`).
`AdminStatus`	Administrative status of the node. `Up` indicates that the node is allowed to become active. `Down` means the node is inactive and is not allowed to become active.
`DomainName`	Name of the local node's PNNI routing domain. All lowest-level nodes with the same domain name are presumed to be connected.
`AtmAddress`	Local node's Asynchronous Transfer Mode (ATM) address.
`PeerGroupId`	Local node's peer group ID.
`RestrictedTransit`	Whether the node is restricted to not allowing support of switched virtual circuits (SVCs) (`Yes` or `No`).
`PglLeaderPri`	Leadership priority value the local node advertises. With the current software version, zero is displayed, because the node cannot become a peer group leader.

Field	Indicates
PglState	State of the node regarding peer group leader election with the peer group. Following are valid values: Starting Awaiting Awaiting Full Initial Delay Calculating Await Unanimity Oper PGL Oper Not PGL Hung Election Await Reelection
PglTimeStamp	Time at which the current peer group leader was established.
PreferredPgl	A node that the local node identifies as the leader of its peer group.
PeerGroupLeader	Identifies the current peer group leader.

Example With the -d option, the pnninodedisplay command displays many additional fields about the configuration and current state of the logical node. For example:

```
admin> pnninodedisplay -d

Node NodeId
1    60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     OperStat        DBOverload      Ptses
     UP              NO              21
     NodeLevel       LowestLevel     AdminStatus     DomainName
     96              YES             UP              stinger1r
     AtmAddress
     39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     PeerGroupId                                     RestrictedTransit
     60:39:84:0f:80:01:bc:72:00:01:31:a3:99:00       NO
     PglLeaderPri    PglState        PglTimeStamp
     0               Oper not PGL    01/01/1990 00:00:00
     PreferredPgl
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     PeerGroupLeader
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnninodetopology

Description Displays the information about nodes that the local node has obtained from nodal information Private Network-to-Network Interface (PNNI) topology state element (PTSE).

Permission level `system`

Usage `pnninodetopology [-d [local node index [node Id]]]`

Command element	Description
No options	Display a summary of all Map entries.
`-d local node index`	Display details of all Map entries.
`-d local node index node Id`	Display details for a single entry for the specified local node and map node.

Example With no options on the `pnninodetopology` command line, the command displays the node index and PNNI node ID (map node ID), as shown in the following output:

```
admin> pnninodetopology

Node MapNodeId
1    60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
1    60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00
```

The `MapNodeID` field is described in the field descriptors table following the next example.

Example With the `-d` option, the command displays additional details about the nodes, as shown in the following sample output:

```
admin> pnninodetopology -d

Node MapNodeId

1    60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     PeerGroupId
     60:39:84:0f:80:01:bc:72:00:01:31:a3:99:00
     NodeAtmAddress
     39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     RestrictedTransit       NodeComplexRep          RestrictedBranching
     NO                      NO                      NO
     NodeDatabaseOverload    IAMLeader               LeadershipPriority
     NO                      NO                      0
     PreferredPgl
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     ParentNodeId
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     ParentAtmAddress
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     NodeParentPeerGroupId
```

```
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     ParentPglNodeId
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
Node MapNodeId
1    60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00
     PeerGroupId
     60:39:84:0f:80:01:bc:72:00:01:31:a3:99:00
     NodeAtmAddress
     39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00
     RestrictedTransit       NodeComplexRep          RestrictedBranching
     NO                      NO                      NO
     NodeDatabaseOverload    IAMLeader               LeadershipPriority
     NO                      NO                      0
     PreferredPgl
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     ParentNodeId
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     ParentAtmAddress
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     NodeParentPeerGroupId
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
     ParentPglNodeId
     00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

The display output contains the following fields:

Field	Indicates
Node	PNNI node index. Only node index 1 is currently supported.
MapNodeId	PNNI node ID of the node being represented.
PeerGroupId	PNNI peer group ID of the node being represented.
NodeAtmAddress	Asynchronous Transfer Mode (ATM) address of the node being represented.
RestrictedTransit	Whether the node is restricted to not allowing support of switched virtual connection (SVCs) (Yes or No).
NodeComplexRep	Whether the node uses complex node representation (Yes or No).
RestrictedBranching	Whether the node is restricted from supporting additional point-to-multipoint branches (Yes or No).
OperStat	Operational status of the node (Up or Down).
NodeDatabaseOverload	Whether the node is currently operating in topology database overload state (Yes or No).
IAmLeader	Whether the originating node claims to be leader of its peer group (Yes or No).

Field	Indicates
LeadershipPriority	Leadership priority value the node advertises.
PreferredPgl	A node that the local node identifies as leader of its peer group.
ParentNodeId	If the node is peer group leader, the node ID of the parent logical group node (LGN). If the node is not peer group leader, this field displays zero.
ParentAtmAddress	If the node is peer group leader, the ATM address of the parent LGN. If the node is not peer group leader, this field displays zero.
ParentPeerGroupId	If the node is peer group leader, the node's parent peer group ID. If the node is not peer group leader, this field displays zero.
ParentPglNodeId	If the node is peer group leader, the node ID of the peer group leader of the parent peer group. If the node is not peer group leader, this field displays zero.

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnniptsestatus

Description Displays Private Network-to-Network Interface (PNNI) topology state elements (PTSEs) in the local node's topology database.

Permission level system

Usage pnniptsestatus [[*originating node Id* [*ptse type*]] | *ptse type*]

Command element	Description
No options.	Display the current topology database.
originating node Id	Display details of all entries for the specified originating node.
originating node Id ptse type	Display details of all entries for the specified originating node and PTSE type.

Command element	Description
ptse type	Display details of all entries for the specified PTSE type. Specify one of following values for the corresponding PTSE types: ■ `-o`—other ■ `-s`—nodal state parameters ■ `-f`—nodal information ■ `-i`—internal address ■ `-e`—external address ■ `-h`—horizontal links ■ `-u`—uplinks

Example With no options on the command line, the `pnniptsestatus` command displays the current topology database:

```
admin> pnniptsestatus

OrigNodeId

60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00

Node PtseId (hex)   SeqNum    LifeTime  CheckSum       PtseType
1    1              47        3600      11143          NodalInfo
1    2              60        3600      51918          InternalAddr
1    4              2         3600      46441          HorizontalLink
1    5              4         3600      7165           InternalAddr
1    6              3         3600      52636          InternalAddr
1    7              2         3600      15160          InternalAddr
1    8              3         3600      61997          InternalAddr
1    9              8         3600      62930          InternalAddr
1    a              5         3600      25143          InternalAddr
1    b              4         3600      12231          InternalAddr
1    c              10        3600      37892          InternalAddr
1    d              10        3600      37791          InternalAddr
1    e              9         3600      37691          InternalAddr
1    11             1         3600      6042           InternalAddr

OrigNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00

Node PtseId (hex)   SeqNum    LifeTime  CheckSum       PtseType
1    1              43        3308      56751          NodalInfo
1    2              50        1658      43086          InternalAddr
1    4              41        2678      33703          InternalAddr
1    5              43        2145      33718          InternalAddr
1    6              43        2061      33721          InternalAddr
1    7              42        1850      33667          InternalAddr
1    a              2         3301      46435          HorizontalLink
```

The display output contains the following fields:

Field	Indicates
OrigNodeId	PNNI node ID of the node that originated the PTSE.
Node	Local node number.
PtseId	Hexadecimal value of the PTSE identifier assigned to the PTSE by the originating node.
SeqNum	Sequence of the entry in the local topology database.
LifeTime	Remaining lifetime for the given PTSE as stated in the topology database.
Checksum	The entry's PTSE checksum as stated in the topology database.
PtseType	Type of information contained in the PTSE entry. Valid values are Other, NodalState, NodalInfo, InternalAddr, ExteriorAddr, HorizontalLinks, and Uplinks.

Example You can specify an originating node ID on the command line, use an option to retrieve information about a specific PTSE type, or retrieve specific PTSE types originated by a specific node. For example, the following sample command displays information only about horizontal link PTSEs:

```
admin> pnniptsestatus -h

OrigNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00

Node PtseId (hex)   SeqNum    LifeTime  CheckSum       PtseType
1    4              2         3600      46441          HorizontalLink

OrigNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:38:ff:b6:ca:99:00:00:00

Node PtseId (hex)   SeqNum    LifeTime  CheckSum       PtseType
1    a              2         3301      46435          HorizontalLink
```

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnniptsestatus, pnnireachableaddr, pnniroutebase.

pnnireachableaddr

Description Displays a list of all reachable addresses from each node visible to the local node in the Private Network-to-Network Interface (PNNI).

Permission level system

Usage pnnireachableaddr [-n *node Id*] | [-a *address*]

Command element	Description
No options	Display all reachable address entries.
-n *node Id*	Display for a given node all reachable addresses.
-a *address*	Display for a given address all entries that match.

Example With no options on the `pnnireachableaddr` command line, the command prints the entire list of reachable addresses. Following is an excerpt showing a few entries from sample output:

```
admin> pnnireachableaddr

AdvertisedNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     PortId              Index               PrefixLength (bits)
     36610               2                   152
     ReachableAddr
     39:84:0f:80:01:bc:72:00:01:18:dd:98:00:ff:18:dd:98:00:02
AdvertisedNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     PortId              Index               PrefixLength (bits)
     36610               3                   152
     ReachableAddr
     39:84:0f:80:01:bc:72:00:01:18:dd:98:00:ff:18:dd:98:00:f1
AdvertisedNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     PortId              Index               PrefixLength (bits)
     36610               4                   152
     ReachableAddr
     39:84:0f:80:01:bc:72:00:01:18:dd:98:00:ff:18:dd:98:00:f2
AdvertisedNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:31:a3:99:30:ff:18:dd:98:00:00:00
     PortId              Index               PrefixLength (bits)
     36610               5                   152
     ReachableAddr
     39:84:0f:80:01:bc:72:00:01:18:dd:98:00:ff:f7:48:cf:3b:01
```

Example You can use a `pnnireachableaddr` command option to display reachable addresses from a specified node or Asynchronous Transfer Mode (ATM) address. For example, the following output shows addresses that are reachable from the specified ATM prefix:

```
admin> pnnireachableaddr -a 39:84:0f:80:01:bc:72:00:01:17:fd:27:09

AdvertisedNodeId
60:a0:39:84:0f:80:01:bc:72:00:01:17:fd:27:09:ff:e8:71:75:03:00:00
     PortId              Index               PrefixLength (bits)
     0                   1                   104
     ReachableAddr
     39:84:0f:80:01:bc:72:00:01:17:fd:27:09
```

The display output contains the following fields:

Field	Indicates
AdvertisingNodeId	PNNI node ID of a node that advertises reachability to the ATM prefix displayed in the ReachableAddr field (displayed in hexadecimal).
PortId	Port ID used by the advertising node to reach the ATM prefix displayed in the ReachableAddr field.
Index	Arbitrary index used to enumerate the addresses advertised by the advertising node.
PrefixLength	Number of significant bits in the prefix displayed in the ReachableAddr field.
ReachableAddress	ATM prefix of the reachable address (displayed in hexadecimal).

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnniroutebase.

pnniroutebase

Description Displays the number of current Private Network-to-Network Interface (PNNI) routes from nodes in the PNNI routing domain to valid addresses and transit networks.

Permission level system

Usage pnniroutebase

Example admin> **pnniroutebase**
pnniRouteAddrNumber = 161

See Also pnnidisplay, pnniinterfacedisplay, pnnilinkdisplay, pnnimapdisplay, pnninnbrdisplay, pnninodedisplay, pnninodetopology, pnniptsestatus, pnnireachableaddr.

pnnisvccrccdisplay

Description The pnniSvccRccDisplay command displays details about switched virtual channel connection (SVCC) based routing control channels (RCCs).

Permission level system

Usage pnniSvccRccDisplay [-d [*local node* [*index*]]]

Command element	Description
no options	Display basic information about the SVCC link or links used for RCCs.
-d *local node*	Display details for all SVCC-based RCCs, or for those associated with a particular local node.

Example To display more details use the -d option. For example, the following output shows details about the SVCC-based RCCs associated with node 1:

```
admin> pnnisvccrccdisplay -d 1
Node Index       Addr:LogItem   VPI|VCI     IntfIndex      HelloState
1    1             {1 17 1}: 0    0  | 32     21             Twoway inside

RemoteNodeId
50:a0:39:84:0f:80:01:bc:72:00:01:17:fd:27:10:ff:1a:80:c3:00:01:01

Version        RcvHellos      XmtHellos
1POINT0        16             16

RemoteNodeId
39:84:0f:80:01:bc:72:00:01:17:fd:27:10:ff:1a:80:c3:00:01:01
```

prtcache

Description Displays statistics about cached RADIUS `private-route` profiles, and enables you to flush the cache.

Note All cached RADIUS `private-route` profiles are read-only. You can delete a single cached profile by using the `delete` command. To delete all cached profiles, use the `prtcache` command.

Permission level `diagnostic, update`

Usage `prtcache -s [profile_name]| -f [-f] | -t`

Command element	Description
`-s`	Display statistics for all cached `private-route` profiles.
`profile_name`	Name of a RADIUS `private-route` profile. If *`profile_name`* is specified, the command displays statistics only for the specified `private-route` profile.
`-f [-f]`	Flush all cached entries. The second `-f` option specifies that the system flushes all cached routes without waiting for confirmation.
`-t`	Toggle debug output.

Example To display statistics for all cached `private-route` profiles:

```
admin> prtcache -s
Profile Name      Created    Exp After(min)   Use Count  Refresh Cache
_____________________________________________________________________
check             12:32:53   1                0          Yes
my-route          10:32:53   23               8          No
```

The display output contains the following fields:

Field	Description
`Profile Name`	Name of the cached profile.

Field	Description
Created	Time at which the profile was created.
Exp After	Number of minutes after which the profile is removed from the cache.
Use Count	Number of times the cached profile was referred to in the past.
Refresh Cache	Whether the profile's cache time is refreshed if the profile is used.

Example To display statistics for statistics for the `private-route` profile named `check`:

```
admin> prtcache -s check
Profile Name     Created    Exp After(min)   Use Count   Refresh Cache
_____________________________________________________________________
check            12:32:53   1                0           Yes
```

Example To flush all cached `private-route` profiles:

```
admin> prtcache -f
Flush all cached Private Route Table Profiles ? [y/n] y
All cached Private Route Table Profiles flushed.
```

If no profiles have been cached, using the `-f` option displays the following output:

```
admin> prtcache -f
Flush all cached Private Route Table Profiles ? [y/n] y
No cached Profiles to flush.
```

If the user does not have the required permission:

```
admin> prtcache -f
error: Command requires 'diagnose' or 'update' privileges
```

Q

quit

Description Terminates the current `telnet` session.

Permission level `user`

Usage `quit`

Example To terminate the current `telnet` session:

```
admin> quit
Connection closed by foreign host.
my-station%
```

R

read

Description Reads a copy of the specified profile into the edit buffer, making it the working profile. If the profile is one of a kind, such as the `ip-global` profile, it has no index field. If an index field exists for a profile, it must be specified on the command line. Only the working profile can be modified. The `set` and `list` commands apply only to the working profile.

Note The working profile remains in the edit buffer until you overwrite the buffer with another `read` command or the `new` command. To save changes made in the buffer, you must use the `write` command.

Permission level `system`

Usage `read` *`profile-type`* [*`profile-index`*][`-f`]

Command element	Description
`profile-type`	Type of profile to be read (or the profile itself if it does not require an index specification).
`profile-index`	Name or address that distinguishes a profile from others of the same type. To see profile indexes, enter the `dir` command (`dir profile-type`).
`-f`	Do not prompt for confirmation when overwriting the unsaved contents of the edit buffer.

By default, if you issue a `read` command that will overwrite the contents of the edit buffer when the buffer contains unsaved changes, the system displays a message prompting for confirmation. For example:

```
admin> read connection david
Reading will overwrite the changes you've made.
Read anyway? [y/n] y
CONNECTION/david read
```

You can avoid this prompt by using the `–f` option on the `read` command line.

Example To find the right index for an `ip-interface` profile, read that profile, and list its contents:

```
admin> dir ip-interface
66  12/20/2002 14:02:02  { { shelf-1 slot-12 1 } 0 }
66  12/27/2002 16:34:40  { { shelf-1 slot-12 2 } 0 }
66  12/27/2002 16:34:47  { { shelf-1 slot-12 3 } 0 }
66  12/27/2002 16:34:54  { { shelf-1 slot-12 4 } 0 }
66  12/28/2002 00:21:06  { { shelf-1 controller 1 } 0 }

admin> read ip-int {{1 c 1} 0}
IP-INTERFACE/{ { shelf-1 controller 1 } 0 } read

admin> list
[in IP-INTERFACE/{ { Shelf-1 controller 1} 0 }]
```

```
interface-address*={ { shelf-1 controller 1 } 0 }
ip-address=10.6.212.227/24
rip-mode=routing-send-and-recv
```

The profile remains in the edit buffer until another `read` command or a `new` command overwrites the buffer. The `set` command modifies the profile. The `write` command saves changes without clearing the buffer.

```
admin> set ip-address=10.6.212.228/24

admin> write
IP-INTERFACE/{ { shelf-1 controller 1 } 0 } written
```

The working profile is represented by a period (`.`) character. Even after you have used the `get` command to display other profiles, or have entered other commands, you can still use the `get` command to display the working profile:

```
admin> get .
[in IP-INTERFACE/{ { Shelf-1 controller 1} 0 }]
interface-address*={ { shelf-1 controller 1 } 0 }
ip-address=10.6.212.228/24
rip-mode=routing-send-and-recv
```

See Also `get, list, new, set, write`

readflash

Description Displays the contents of `flash-card-1` and `flash-card-2`.

Permission level `update`

Usage `readflash`

Example admin> **`readflash`**

```
Flash1 (task "CLI session input task" at 0x80ba2810, time: 71861.25) 64
octets @ 0x80659308
[0000]: a6 0a 0d 00 d6 ec a6 3d 1f 8b 08 00 00 00 00 00
[0010]: 02 03 ec fd 7f 7c 9c 65 95 3f 0e 9f b9 67 26 99
[0020]: a6 d3 f6 4e 3a 4d a7 a5 94 49 72 67 12 da 04 87
[0030]: 12 24 48 90 21 49 a1 2a 6a 5a 42 ad 82 18 d3 02
Flash2 (task "CLI session input task" at 0x80ba2810, time: 71861.25) 64
octets @ 0x80659308
[0000]: a6 0a 0d 00 d6 ec a6 3d 1f 8b 08 00 00 00 00 00
[0010]: 02 03 ec fd 7f 7c 9c 65 95 3f 0e 9f b9 67 26 99
[0020]: a6 d3 f6 4e 3a 4d a7 a5 94 49 72 67 12 da 04 87
[0030]: 12 24 48 90 21 49 a1 2a 6a 5a 42 ad 82 18 d3 02
```

Dependencies The `readflash` command requires that you enable diagnostic output.

rearslotshow

Description Displays the state of all slots used for line protection modules (LPMs), path selector modules (PSMs), and copper loop test (CLT) modules, and reports the status of the midplane sparing bus.

Permission level `System`

Note Slots that are equipped with interface redundancy modules (IRMs) or LPMs with redundancy (LPM-Rs) in older Stinger units are reported as `Empty` by the `rearslotshow` command. Also, when a copper loop is being tested on a Stinger LS unit with a PSM or CLT module, the command does not display any midplane sparing bus usage.

Usage `rearslotshow [`*`shelf`*`]`

Command element	Description
shelf	To display the state of all slots used for LPMs, PSMs, and CLT modules, or report the status of the midplane sparing for a remote unit, replace the optional argument *shelf* with the shelf ID of the remote unit.

Example admin> **rearslotshow**

```
Slot      Slot ID
[  1 ]    0    Empty ( IRM, LPM )
[  2 ]    0    Empty ( IRM, LPM )
[  3 ]    0    Empty ( IRM, LPM )
[  4 ]    0    Empty ( IRM, LPM )
[  5 ]    0    Empty ( IRM, LPM )
[  6 ]    0    Empty ( IRM, LPM )
[  7 ]    0    Empty ( IRM, LPM )
[ 10 ]    0    Empty ( IRM, LPM )
[ 11 ]    0    Empty ( IRM, LPM )
[ 12 ]    0    Empty ( IRM, LPM )
[ 13 ]    0    Empty ( IRM, LPM )
[ 14 ]    0    Empty ( IRM, LPM )
[ 15 ]    0    Empty ( IRM, LPM )
[ 16 ]    0    Empty ( IRM,  LPM )
Midplane sparing bus usage :
4         4          3           2          1
8765 4321 0987 6543 2109 8765 4321 0987 6543 2109 8765 4321
.... .... .... .... .... .... .... .... .... .... .... ....
```

red-prof-sync

Description Forces the profile context to be transferred from the primary control module to the secondary control module. This command enables you to synchronize the redundant control module profile context at any moment—not just while saving the profile by issuing the `write` command.

Permission level `system`

Usage `red-prof-sync`

Example admin> **red-prof-sync**
admin>
Primary Controller: profile transfer to Secondary Controller completed

redundant-controller-switch

Description Enables you to make the secondary control module primary.

If two control modules are available, one of them is the primary controller, and the other one the secondary controller. At start-up time, both controllers negotiate to become primary. You can influence this process by setting the primary preference flag in the `redundancy` profile to the slot number of the controller that will become primary when two controllers are present. If the primary fails, the secondary automatically takes over control of the system. The new primary deactivates all slot modules and reactivates the system.

Permission level `system`

Usage `redundant-controller-switch [-f]`

Command element	Description
`-f`	Forces a switchover.

Example Following are samples of command output under different conditions:

- Command entered on a secondary control module:

  ```
  admin> redundant-controller-switch
  This controller is not the PRIMARY, it does not own the bus !
  ```

- Command entered on the primary control module when the secondary is not requesting to be primary:

  ```
  admin> redundant-controller-switch
  The remote controller is not requesting the bus,
  it cannot become PRIMARY !
  ```

- Command entered on the primary control module when no secondary exists:

  ```
  admin> redundant-controller-switch
  There is no remote controller !
  ```

See Also `refresh`

refresh

Description Opens a connection to a RADIUS server and retrieves the latest configuration information.

Permission level `system`

Usage `refresh -a |-n |-p |-r | -t`

Command element	Description
`-a`	Refresh all types of configuration.
`-n`	Refresh dedicated (nailed) profile configurations.
`-p`	Refresh address pool configurations.
`-r`	Refresh static route configurations.
`-t`	Refresh terminal server configurations.
`-s`	Clear the current Source Auth information (purging all existing Source Auth entries from the cache) and reload it from RADIUS.

See Also `rad-auth-client`

relayoff

Description Turns off an alarm relay.

Permission level `diagnostic`

Usage `relayoff [major | minor]`

Command element	Description
`major`	Turn off the MAJOR relay.
`minor`	Turn off the MINOR relay.

Example To turn off the MAJOR relay:

```
admin> relayoff major
```

remote

Description Enables you to manage another unit remotely. During a remote management session, the user interface of the remote device is displayed as if you had opened a Telnet connection to the device.

When you use the `remote` command on the shelf controller, the Stinger unit locates the host card that has an active connection to the remote unit. It then opens a session to that card, and uses the `remote` command on the card to bring up the remote management session. The `remote` command uses a proprietary protocol to connect to the remote unit and bring up its user interface.

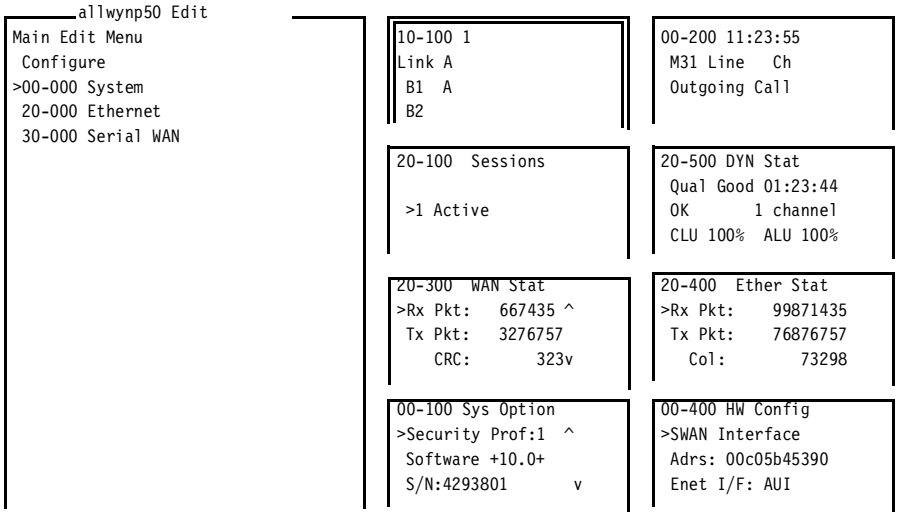
Permission level `diagnostic`

Usage remote *station_name*

Command element	Description
station_name	Specifies the station name of the remote device. The value you enter must match the value of a `station` parameter in a `connection` profile, or of the user ID at the start of a RADIUS profile.

Example To manage the unit called `allwyn` remotely:

```
admin> remote allwyn
```



To exit from the remote management session and return to the command-line interface session on the shelf controller, type Ctrl+C three times in quick succession. Either end of the connection can terminate a Multilink Protocol Plus (MP+) connection by hanging up all channels of the connection.

The Stinger unit generates an error message for any condition that causes the session to terminate before the unit sends the full number of packets. The following messages might appear:

Error message	Explanation
`not authorized`	Permissions are insufficient for beginning a remote management session. You must authenticate a `user` profile that enables the `system` permission.
`cannot find profile for` *`station`*	No profile was found for the specified station name.
`profile for` *`station`* `does not specify MPP`	A profile was located for the station name, but it did not specify the MP+ encapsulation protocol.
`cannot establish connection for` *`station`*	The MP+ connection to the remote station could not be established.
`station` `did not negotiate MPP`	The remote station did not negotiate an MP+ connection.
`far end does not support remote management`	The remote station is running a version of TAOS that does not support remote management.
`management session failed`	A temporary condition, such as premature termination of the connection, caused the management session to fail.
`far end rejected session`	The remote station was configured to reject remote management.

Dependencies Consider the following:

- The connection must use the MP+ protocol.
- The connection must already be established.
- Because your initial permissions are set by the default `security` profile on the remote system, you might need to authenticate the `full access` or other administrator-level `security` profile before managing the unit.
- A remote management session can time out, because the traffic it generates does not restart the idle timer. Therefore, the `idle` parameter in the `connection` profile at both the calling and answering ends of the connection must be disabled during a remote management session, and restored just before exiting.
- Remote management works best at higher terminal speeds.

remoteshelf

Description `remoteshelf` displays information about enabled remote shelves

Permission level `system`

Usage `remoteshelf [ -s | -o ] Shelf_ID`

Command element	Description
With no options	Show information for all remote shelves.
`-s`	Show detailed information for a single remote shelf.
`-o`	Show all remote shelves associated with a given OLIM slot.

Example The following command shows details about remote shelf 3:

```
HOST> remoteshelf -s 3
Shelf:           3
Shelf Name:      MyShelfName
Shelf Location:  MyShelfLocation
Shelf Type:      Stinger MRT
Host Port:       { { 1 17 1 } 0 }
Shelf Enabled:   Yes
Oper State:      OPER_UP
Up Count:        2
Last Up Time:    Wed Sep 17 15:45:25 2003
Last down Time:  Wed Sep 17 15:45:21 2003
```

Example The following command displays all configured remote shelves:

```
HOST> remoteshelf
Shelf Name              AdminState OperState  host-port        up-count
   2  MyShelfName       Enabled    OPER_Down  {{ 0 0 0} 0}
```

reset

Description Resets the Stinger unit. When you reset a unit, it restarts, and all active connections are terminated. All users are logged out, and the default security level is reactivated. In addition, a system reset can cause a WAN line to temporarily be shut down due to momentary loss of signaling or framing information. After a reset, the Stinger unit runs a power-on self test (POST).

Permission level `update`

Usage `reset [ -f ][ -m ] [ -r primary_controller | secondary_controller | both_controllers ][ -s shelf_ID ]`

Command element	Description
`-f`	Perform the reset without prompting for confirmation.

Command element	Description
`-m`	Reset only the master controller in a hosted system.
`-r primary_controller`	Reset the primary controller only.
`-r secondary_controller`	Reset the secondary controller only.
`-r both_controllers`	Reset both controllers (the default).
`-s` *`shelf_ID`*	Reset a specific remote shelf in a hosted system.

Example With no options, the default action is to reset all controllers in the hosted system:

```
admin> reset
```

See Also `nvram`

rm

Description Deletes a file or directory on a PCMCIA flash memory card.

Permission level `system`

Usage `rm` *`socket/path`*

Command element	Description
`socket`	Flash card number.
`path`	Subdirectory to be deleted.

Example To remove the `/test1` directory on flash card 1:

```
admin> rm 1/test1
```

See Also `cat, ls, mkdir, mv`

S

save

Description Saves configuration information to a file. The file can reside either on the hard disk of the PC you are using to issue commands to the Stinger unit, or on a networked host. The file is saved in a format that can be loaded into the Stinger unit to restore a configuration.

The `save` command uses the Trivial File Transfer Protocol (TFTP) to transfer the configuration across the network. To save the Stinger configuration on a remote host, you must have the necessary permissions in the directory.

Permission level `update`

Usage save [-a] [-m] [-z] [-e *encryption_type password*]
[*target* [*profile-type* [*profile-index*]]
| network *host filename* [-p *profile1*, *profile2*...
| -x *profile1*, *profile2*...]

Command element	Description
-a	Explicitly save all fields, even those with default values. If you do not specify this option, the file stores only those fields whose values have been changed from the default.
-m	Use Management Information Base (MIB) tags instead of field and value names, and use profile-type numbers rather than profile-type text names.
-z	Save the target configuration files in gzip compressed file format.
-e	Use encryption.
encryption_type password	■ The *encryption_type* argument specifies the method to be used for encryption and decryption. You can specify DES or MD5. ■ The *password* argument specifies the password used to generate the key for encryption and decryption. ■ The -e option supports only a network target.
target	Destination of the file to be saved. Valid specifications are: ■ *network host filename*—A network hostname or IP address and the name of the file on that host. ■ console—The PC you are using in a terminal session. ■ *flash device filename*—The PCMCIA flash memory card.
profile-type	Type of profile to be read, or the profile itself if it does not require an index specification.
profile-index	Name or address that distinguishes a profile from others of the same type. To see profile indexes, enter the dir *profile-type* command.
network *host filename*	Hostname or IP address of the source network and the name of the file on that host.
-p *profile1*, *profile2...*	Save the specified list of profiles (used only with the network option).
-x *profile1*, *profile2...*	Save all profiles, except those in the specified list (used only with the network option).

Note Most `telnet` utilities have a capture function. For example, `telnet.cfg` has a capture function under the `file` menu. Start the capture before issuing the `save` command, and end the capture after the terminal display has ended. The capture function usually reports the name of the target file into which the display has been saved.

Example To save all `connection` profiles to a file on a PC's hard disk (after starting the capture utility in the terminal emulation software):

```
admin> save console connection
; saving profiles of type CONNECTION
; profile saved Thu Jan 2 13:02:54 2002
new CONNECTION dallas
set active=yes
set ip-options remote-address=10.122.99.1/24
write -f
;
; profile saved Thu Jan 2 13:02:54 2002
new CONNECTION chicago
set active=yes
set dial-number=999
set ip-options remote-address=10.168.6.57/24
set ip-options routing-metric=2
write -f
;
```

To save the file, stop the capture in the terminal emulation software.

Example To save the entire configuration to hard disk, start the capture utility and specify the `console` option:

```
admin> save console
; saving all profiles
...
```

All configured profiles and parameters scroll to the capture buffer. When the entire configuration has been displayed, the following output appears:

```
;
;
; all profiles saved
```

To save the file, stop the capture.

Example The following example shows how to save a specific profile to a file on a network host:

```
admin> save network host-231 /users/marcel/ipglobal ip-global
configuration being saved to 10.65.12.231
file /users/marcel/ipglobal...save
admin>
```

Example The following example shows how the `save` command specifies a profile type by its internal number when saving with the `-m` option:

```
admin> save -m console system
; saving profiles of type SYSTEM
; profile saved Sat Mar 29 13:29:42 2002
new 3
set 1=1
set 2=eng-lab-43
write -f
```

Note If the first item following a `new`, `read`, or `dir` command is numeric, the system handles the item as a profile-type number.

See Also `load, nvram`

screen

Description Changes window display sizes for the current session only. If the `status` window is open when you enter the `screen` command, the window is resized dynamically. If it is not open, the `status` window is resized when you next open it.

Permission level `update`

Usage `screen [screen-length] [status-length] [-w width]`

Command element	Description
screen-length	Number of lines displayed in the command-line window. The default is 24 lines, which is the minimum size. The maximum size is 999 lines
status-length	Number of lines displayed in the `status` window, including dividing lines. The default is 18 lines, which is the minimum size. The maximum size is 993 lines. The `status-length` value must be less than `screen-length` by at least 6 lines
`-w` *width*	Screen width, a value from 80 (the default) to 256.

Example If only the *screen-length* argument is specified, and the stored *status-length* is not less than the specified value by six lines, the *status-length* is automatically adjusted. This scenario is demonstrated in the following example:

```
admin> screen 55 22
new screen-length 55
new status-length 22

admin> screen 24
error: screen-length conflict, adjusting status-length from 22 to 18
new screen-length 24
new status-length 18
```

Example The screen command enables you to specify the width of the screen. For example, the following command sets the screen width to 256 characters:

```
admin> screen -w 256
```

The specified screen width is the number of characters that are visible without scrolling, including the system prompt and spaces following it.

For example, if the screen width is 80 characters and the prompt is admin> (a 6-character prompt followed by a space), the maximum number of visible characters in a command is 72. If you enter a long command (for example, one that has 100 characters), 28 of the characters are not visible at any one time. You can scroll to the characters not currently visible by moving the cursor left or right. The Ctrl-L, Ctrl-R control sequence allows you to redraw the current line.

See Also screen-length, screen-width

sdsllines

Description Displays SDSL channel information.

Permission level system

Usage sdsllines -a | -d | -f | -sh | -sl | -u

Command element	Description
-a	Display all available channels.
-d	Display all disabled channels.
-f	Display all possible channels.
-sh *shelf*	Limit the output to lines on the specified shelf.
-sl *shelf slot*	Limit the output to lines on the specified slot.
-u	Display all in-use channels.

Example To display all SDSL channels available, use the -a option:

```
admin> sdsllines -a
All SDSL lines:
                                (dvOp   dvUpSt     dvRq    sAdm   nailg)
  Line    {    1  3  1 }      (Up     Idle       UP      UP     00001)
  Line    {    1  3  2 }      (Up     Assigned   UP      UP     00002)
  Line    {    1  3  3 }      (Up     Assigned   UP      UP     00003)
  Line    {    1  3  4 }      (Up     Idle       UP      UP     00004)
  Line    {    1  3  5 }      (Up     Idle       UP      UP     00005)
  Line    {    1  3  6 }      (Up     Assigned   UP      UP     00006)
  Line    {    1  3  7 }      (Up     Idle       UP      UP     00007)
  Line    {    1  3  8 }      (Up     Assigned   UP      UP     00008)
  Line    {    1  3  9 }      (Up     Assigned   UP      UP     00009)
  Line    {    1  3 10 }      (Up     Assigned   UP      UP     00010)
  Line    {    1  3 11 }      (Up     Assigned   UP      UP     00011)
  Line    {    1  3 12 }      (Up     Assigned   UP      UP     00012)
```

```
Line    {    1  3 13 }     (Up     Assigned   UP      UP     00013)
Line    {    1  3 14 }     (Up     Assigned   UP      UP     00014)
Line    {    1  3 15 }     (Up     Assigned   UP      UP     00015)
Line    {    1  3 16 }     (Up     Idle       UP      UP     00016)
```

The data displayed includes the physical address and channel number, and the following status information about each channel:

Field	Description
dvOp	The current operational state of the channel (also specified by the device-state parameter): ■ Down—Indicates that the channel is in a nonoperational state. ■ Up—Indicates that the channel is in normal operations mode.
dvUpSt	The status of the channel in normal operations mode: ■ Idle—Indicates that no call is on the line. ■ Active—Indicates that the channel is handling a call.
dvRq	The required state of the channel as specified by the reqd-state setting: ■ Down—Indicates that the channel is required to be nonoperational. ■ Up—Indicates that the channel is required to be in normal operations mode.
sAdm	The desired administrative state of the line: ■ Down—Indicates that the line should terminate all operations and enter the down state. ■ Up—Indicates that the line should start up in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated that should change the Stinger unit to the state desired.
nailg	The dedicated (nailed) group to which the line is assigned.

See Also device-type, device-state

set

Description Sets a parameter's value or displays help text for a parameter in the current or specified context of the working profile. To save the new setting, you must write the profile.

Permission level `system`

Usage `set` *`param-name`* [*`param-index`*] [*`subprofile`*] `=` *`value`* | `?`

Command element	Description
`param-name`	Name of the parameter in the current or specified context of the working profile.
`param-index`	Parameter index, which might be required for complex parameters. (See the `physical-address` parameter example.)
`subprofile`	Subprofile name within the working profile. By specifying its name on the command line, you can set a parameter in a subprofile without opening the subprofile.
`=` *`value`*	Valid parameter value. The equals (=) sign is part of the required syntax unless you are using the question mark (?) for help.
`?`	Display help text about the specified parameter. Omit the equals (=) sign. To display help about the address parameter, for example, enter `set address ?` from within the profile and subprofile that contains the address parameter.

Example `set enabled = yes`

See Also `list, new, physical-address, read, write`

shdsllines

Description Displays the status of all SHDSL lines.

Permission level `system`

Usage `shdsllines [-a | -d | -f | -u | -sh | -sl | -t]`

Command element	Description
`-a`	Show all SHDSL lines.
`-d`	Show disabled lines
`-f`	Show all free lines
`-u`	Show in-use lines
`-sh` *`shelf`*	Limit the output to lines on the specified shelf.

Command element	Description
`-sl` *`shelf slot`*	Limit the output to lines on the specified slot.
`-t`	Toggle debug flag.

Example To show all free lines:

```
admin> shdsllines -f

Free SHDSL lines:
                          (dvOp   dvUpSt  dvRq    sAdm    nailg)
Line    {    1  4  3 } (Down   Idle    UP      UP      00153)
Line    {    1  4  4 } (Up     Idle    UP      UP      00154)
```

The data displayed includes the physical address of each line and the following status information:

Field	Description
`dvOp`	The current operational state of the line: ■ `Down` indicates that the line is in a nonoperational state. ■ `Up` indicates that the line is in normal operations mode.
`dvUpSt`	The status of the line in normal operations mode: ■ `Idle` indicates that no call is on the line. ■ `Active` indicates that the line is handling a call.
`dvRq`	The required state of the line: ■ `Down` indicates that the line is required to be nonoperational. ■ `Up` indicates that the line is required to be in normal operations mode.
`sAdm`	The desired administrative state of the line: ■ `Down` specifies that the line should terminate all operations and enter the deactivated state. ■ `Up` specifies that the line should be activated in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up, or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated (for example, someone has dialed in) that should change the Stinger unit to the desired state.
`nailg`	The dedicated (nailed) group to which the line is assigned.

show

Description Displays information about installed modules and their status.

Permission level `system`

Usage `show [-a ... | -s [`*shelf-number* `[`*slot-number* `[`*item-number*`]]]`

Command element	Description
No options	List all modules in the system.
`-a ...`	Include modules absent. Display all slots that the Stinger unit currently maintains state information for, including slots in the state of `none`. The `none` state indicates that configuration profiles are being preserved for a slot whose module has been removed.
`-s`	Show additional information for debugging.
shelf-number	The shelf ID number. 1 in a Stinger host or standalone unit. 2-7 for a Stinger MRT slave unit. 2-25 for a Stinger Compact Remote slave unit
slot-number	The slot number. (1-16)
item-number	The item number.

Example To display all installed modules:

```
admin> show
Shelf 1 ( master ):
                                Reqd  Oper   Slot Type
   { shelf-1 slot-1 0 }         UP    UP     mrt-36-adsl-card
   { shelf-1 trunk-module-1 0 } UP    UP     oc3-atm-trunk-daughter-card
   { shelf-1 trunk-module-2 0 } UP    UP     ds3-atm-trunk-daughter-card
   { shelf-3 slot-1 0 }         UP    UP     mrt-36-adsl-card
   { shelf-3 first-control-mod+ UP    UP     mrt-cm
```

The output includes the address of each slot in which an expansion module is installed, the required status and actual operating status of the module, and the type of module installed. The required and operating status can be one of the following:

Status	Description
`UP`	Normal operational mode. The module is activated and running.
`DOWN`	Not in an operational mode. The module has shut down all functions and can be deactivated by the shelf controller.
`POST`	The download is complete, and the devices in the module are running power-on self tests (POSTs).

Status	Description
BOOT	The module is running BOOT code. Under normal conditions, the LOAD status follows.
LOAD	The module is loading code as part of starting up.
RESET	The module is being reset.
NONE	The module has been swapped out, but its configuration remains in flash memory.
OCCUPIED	The module is using two slots.
DIAG	The specified remote shelf coredumps across the host system and does not have a local Ethernet interface.

See Also `device, slot`

sleep

Description Specifies the number of seconds the system pauses before it executes the next command.

Permission level `system`

Usage `sleep` ***[seconds]***

Command element	Description
seconds	A value from 0 through 60 seconds. The default setting is 5 seconds.

Example From the command-line interface, the following sample command configures the system to pause for 10 seconds before it executes the next command:

```
admin> sleep 10
```

The `sleep` command is useful for provisioning `connection` profiles using the NavisAccess™ management software. The command enables the system to completely delete an old configuration profile before using a new profile with the same name. NavisAccess™ management software users can introduce this command in a configuration file sent to a Stinger unit to time saving the configuration profiles.

slot

Description Changes the administrative state of a module, forcing a state change (up or down). The down state allows temporary removal of a card without the loss of its configuration.

Permission level diagnostic

Usage slot -u | -d | -r | -t | -b | -m | -w [*shelf-number* [*slot-number*]]

Command element	Description
-u	Activate the specified module.
-d	Deactivate the specified module.
-r	Delete the profiles for a module that has been removed.
-t	Toggle module debug level.
-b	Force a hardware reset of a module.
-m	Put a module into maintenance state.
-w	Change or display the watchdog failure limit.
shelf-number	Shelf ID number. 1 in a Stinger host or standalone unit. 2-7 for a Stinger MRT slave unit. 2-25 for a Stinger Compact Remote slave unit
slot-number	Number of an expansion slot in the specified shelf (1 through 16).

The Stinger unit generates new syslog records when you use the following commands:

- slot -b—Reset a module.
- slot -d—Stop operation of a module.
- slot -u—Start operation of a module.

When you use slot -b or slot -d, the Stinger unit also generates new nonvolatile RAM (NVRAM) records.

Example To start up the expansion module in slot 5:

```
admin> slot -u 5
slot 1/5 state change forced
```

Example In the next example, a module has been removed, as indicated by a status of NONE in the output of the show command:

```
admin> show 1 4
Shelf 1 ( standalone ):
    { shelf-1 slot-4 0 }       UP         al-dmtadsl-atm-card:
    { shelf-1 slot-4 1 }       UP         xdsl-12-line1
    { shelf-1 slot-4 2 }       UP         xdsl-12-line-2
    { shelf-1 slot-4 3 }       UP         xdsl-12-line-3
```

```
{ shelf-1 slot-4 4 }       UP         xdsl-12-line-4
{ shelf-1 slot-4 5 }       UP         xdsl-12-line-5
{ shelf-1 slot-4 6 }       UP         xdsl-12-line-6
{ shelf-1 slot-4 7 }       UP         xdsl-12-line-7
{ shelf-1 slot-4 8 }       UP         xdsl-12-line-8
{ shelf-1 slot-4 9 }       UP         xdsl-12-line-9
{ shelf-1 slot-4 10 }      UP         xdsl-12-line-10
{ shelf-1 slot-4 11 }      UP         xdsl-12-line-11
{ shelf-1 slot-4 12 }      NONE       xdsl-12-line-12
{ shelf-1 slot-4 13 }                 xdsl-12-virt-device
```

The NONE status indicates that the module was removed but that its profiles have been saved. The Stinger unit retains information about the module that was in the slot and saves its profiles until a module of a different type is installed in the same slot, or until you delete the profile:

```
admin> slot -r 4
slot 1/4 removed
```

Either action deletes all the old profiles associated with the slot. When you insert a different type of module, the system creates appropriate new profiles.

Note If you replace a line interface module (LIM) and wish to retain the existing Asynchronous Transfer Mode (ATM) addresses for the slot (whether the addresses were generated by the system or assigned explicitly), do *not* use the `slot -r` command. Simply remove the old LIM and insert the new LIM into the slot. The system recognizes the existing ATM addresses and does not generate new ones. A soft permanent virtual circuit (SPVC) initiator switch can reestablish subscriber SPVCs, because the SPVC addresses have not changed.

See Also `device, open, show`

slot-clock-source

Description Shows the clock sources available from trunk modules.

Permission level `diagnostic`

Usage `slot-clock-source`

Example To show the available clock sources:

```
admin> slot-clock-source

Best line: 18.1

Local Source List:
Source: line 18.1 Available*    priority: 2
```

The clock source is displayed in *slot.line* format, in which *slot* indicates the trunk module slot number and *.line* indicates the trunk module line number.

snmpauthpass

Description Generates the authentication key of a Simple Network Management Protocol version 3 (SNMPv3) user-based security model (USM) user.

Permission level `update`

Usage `snmpauthpass` *`username password`*

Command element	Description
`username`	SNMPv3 USM user for whom an authentication key is generated.
`password`	Password for generating the authentication key.

The `snmpauthpass` command can accept a username in escape sequence format.

Example To generate the authentication key of the user `robin` with the password `abc123`:

```
admin> snmpauthpass robin abc123
```

Dependencies The password you specify is not stored in the system. It is used to generate an authentication key when the user is authenticated. The key is stored in the system.

See Also `snmpprivpass`

snmpprivpass

Description Generates the privacy key of a Simple Network Management Protocol version 3 (SNMPv3) user-based security model (USM) user.

Permission level `update`

Usage `snmpprivpass` *`username password`*

Command element	Description
`username`	SNMPv3 USM user for whom a privacy key is generated.
`password`	Password for generating the privacy key.

The `snmpprivpass` command can accept a username in escape sequence format.

Example To generate the privacy key of the user `robin` with the password `abc123`:

```
admin> snmpprivpass robin abc123
```

Dependencies The password you specify is not stored in the system. It is used to generate a privacy key when the user is authenticated. The key is stored in the system.

sntp

Description Displays statistics concerning the state of the Simple Network Time Protocol (SNTP) server.

SNTP enables a group of servers to synchronize their clocks with reference to a primary time server. The SNTP server retrieves the correct time from an official source and distributes the information to other servers and networks.

Permission level `system`

Usage `sntp -d`

Example admin> **sntp -d**

```
SNTP:
mode: disabled, threshold: 10
max delta: 0, last Delta: 0
waiting for first update
system start time: Wed Oct 11 15:18:40 2000
original system start time: Wed Oct 11 15:18:40 2000
SNMP start delta: 5
SNMP trap sent: 0
time left for next request: 0 sec
```

splimports

Description Displays the redundancy or ignore-lineup setting for a line interface module's (LIM) ports.

Permission level `debug`

Usage `splimports -i [ -n | -s | -y ] | -s [ -a | -i | -m | -w ] [`*`slotnumber`*`]`

Command element	Description
`-i`	Ignore-lineup feature setting for LIM ports. Use the `-i` option with the following arguments to display specific ignore-lineup settings: `-n`—Ports that are disabled for the ignore-lineup feature. `-s`—Ports that are configured for system-defined ignore-lineup. `-y`—Ports that are enabled for the ignore-lineup feature (default option).
`-s`	Redundancy setting for LIM ports. Use the `-s` option with the following arguments to display ports with specific redundancy settings: `-a`—Ports enabled for automatic redundancy. `-i`—Ports that are disabled for automatic or manual redundancy.

Command element	Description
	-m—Ports enabled for manual redundancy.
	-w—Ports enabled for both automatic and manual redundancy (default option).
slotnumber	Settings for ports in the specified slot. If no slot number is specified, the command applies to all slots.

Example admin> **splimports -i -s**

```
        Line            Type
        --------------------
        1-1-1           SDSL
        1-1-2           SDSL
        1-1-3           SDSL
        1-1-4           SDSL
        1-1-5           SDSL
admin> splimports -s -i
        Line            Type            Sparing Mode
        ------------------------------------------
        1-1-1           SDSL            Inactive
        1-1-2           SDSL            Inactive
        1-1-3           SDSL            Inactive
        1-1-4           SDSL            Inactive
        1-1-5           SDSL            Inactive
```

spvcc

Description Displays Asynchronous Transfer Mode (ATM) soft permanent virtual channel connection (PVCC) statistics.

Permission level system

Usage spvcc [-a | -sh | -s | -p | -d] *shelf slot port vpi*

Command element	Description
-a	Show all ATM soft PVCC entries.
-sh *shelf*	Show ATM soft PVCC entries by shelf.
-s *shelf slot*	Show ATM soft PVCC entries by slot.
-p *shelf slot port*	Show ATM soft PVCC entries by slot and port.
-d *shelf slot port vpi*	Show detailed information about an ATM soft PVCC associated with a specific virtual path identifier (VPI).

Example To display detailed statistics for a specific PVCC, you can first show all ATM soft PVCCs to verify the slot, port, and VPI of the one you want. Then, enter the spvcc command again with that information:

```
admin> spvcc -a

Profile Intf/Slot/Port/ VPI/ VCI/targVPI/targVCI TargSel OStatus
spvc1   16   1    2     0   32   0       33      req     inProg

.....

admin> spvcc -d 16 2 0

Profile = ray-1
Physical Address = { 1 1 2 }
Interface = 16
OperStatus = inProg
VCL Vpi = 0
VCL Vci = 32
TargetSelect = req
TargetVpi = 0
TargetVci = 33
Target ATM address =
47.41.0.31.0.31.0.31.0.31.0.31.11.22.33.44.55.66.0.0
LastReleaseCause = 3
LastReleaseDiagnostic = 81
RetryFailures = 19
RetryInterval = 10
RetryTimer = 7
RetryThreshold = 1
RetryLimit = 0
```

spvcshow

Description Shows Asynchronous Transfer Mode (ATM) soft permanent virtual circuit (SPVC) addresses.

Permission level system

Usage spvcshow [-a | -sh | -s | -p] *shelf slot port*

Command element	Description
-a	Show all ATM SPVC addresses.
-sh *shelf*	Show ATM SPVC address entries by shelf.
-s *shelf slot*	Show ATM SPVC address entries by slot.
-p *shelf slot port*	Show ATM SPVC address entries by slot and port.

Example To show the ATM SPVC addresses for all ports on remote shelf 2:

```
admin> spvcshow -sh 2
ADDR:Item  Stat SPVC-ATM-Address
2-1-1:0   up   39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:01:00
2-1-2:0   down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:02:00
2-1-3:0   down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:03:00
2-1-4:0   down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:04:00
2-1-5:0   up   39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:05:00
2-1-6:0   down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:06:00
2-1-7:0   down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:07:00
2-1-8:0   up   39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:08:00
2-1-9:0   up   39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:09:00
2-1-10:0  down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:0a:00
2-1-11:0  down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:0b:00
2-1-12:0   down 39:84:0f:80:01:bc:72:00:01:0d:61:c0:39:ff:00:00:00:01:0c:00
...
```

See Also spvcc, spvpc

spvcstat

Description Show overall Asynchronous Transfer Mode (ATM) soft permanent virtual circuit (SPVC) and soft permanent virtual path (SPVP) information.

Permission level system

Usage spvcstat

Example admin> **spvcstat**

```
Call Failures = 88
Currently Failing PVCCs = 1
Currently Failing PVPCs = 1
```

spvpc

Description Displays Asynchronous Transfer Mode (ATM) soft permanent virtual path connection (PVPC) statistics.

Permission level system

Usage spvpc [-a | -sh | -s | -p | -d] *shelf slot port vpi*

Command element	Description
-a	Show all ATM soft PVPC entries.
-sh *shelf*	Show ATM soft PVPC entries by shelf.
-s *shelf slot*	Show ATM soft PVPC entries by slot.
-p *shelf slot port*	Show ATM soft PVPC entries by slot and port.
-d *shelf slot port vpi*	Show detailed ATM soft PVPC information.

Example To display detailed statistics for a specific PVPC, you can first show all ATM soft PVPCs to verify the shelf, slot, port, and VPI of the one you want. Then enter the spvpc command again with that information:

```
admin> spvpc -a
Profile      Shelf/Slot/Port  VPI/targVPI TargSel OStatus RFail  LastCause
spvp-2.1      1    2    1     15  15      req     inProg  21  RecOnTimerExpiry

....

admin> spvpc -d 1 18 2 5

Profile = spvc-init-1
Physical Address = { 1 18 2 }
OperStatus = inProg
VCL Vpi = 5
TargetSelect = req
TargetVpi = 0
Target ATM address =
47.41.0.31.0.31.0.31.0.31.0.31.11.22.33.44.55.66.0.0.
LastReleaseCause = 3
LastReleaseDiagnostic = 81
RetryFailures = 10
RetryInterval = 10
RetryTimer = 5
RetryThreshold = 1
RetryLimit = 0
```

status

Description Displays the status windows. You can configure the content of the windows to show connection, line, or log-message information.

Permission level system

Usage status [on | off]

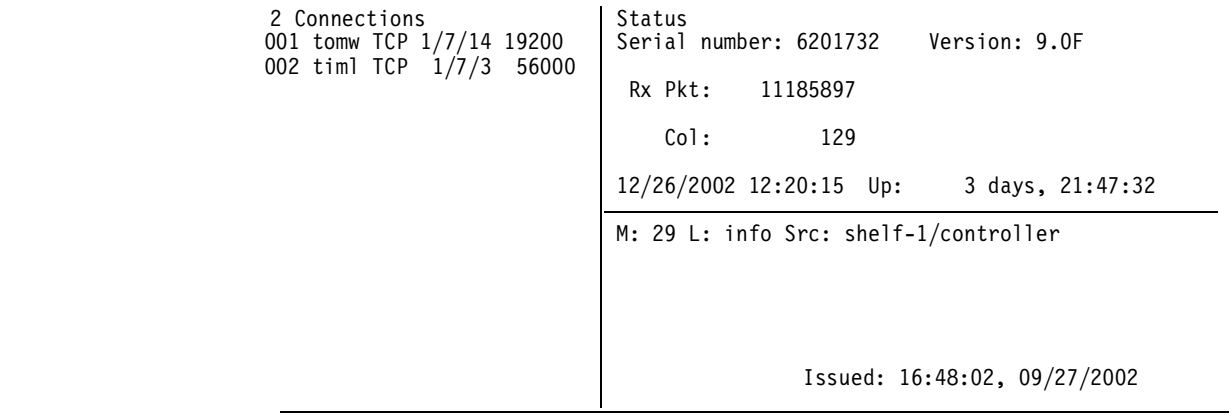
Command element	Description
on	Display the status windows.
off	Hide the status windows.

Example To display status windows:

```
admin> status
```

or

```
admin> status on
```



To hide the windows:

```
admin> status
```

or

```
admin> status off
```

See Also `connection`, `log`, `view`

T

telnet

Description Opens a `telnet` session across the network to the specified host.

Permission level `diagnostic`

Usage `telnet [-a | -b | -t ][ -l [e] | -r [e] ]` *`hostname`* `[`*`portnumber`*`]`

Command element	Description
`-a`	ASCII mode, or standard 7-bit mode. In 7-bit mode, bit eight is set to 0 (zero). This value is the default if no other mode is specified.
`-b`	Binary mode. The Stinger unit attempts to negotiate the `telnet` 8-bit binary option with the server at the remote end. You can run X-Modem and other 8-bit file transfer protocols in this mode.
`-t`	Transparent mode. You can send and receive binary files, and run the same file-transfer protocols, without having to be in binary mode.
`-l [e]`	Local echo. As you type a line, it echoes on your terminal screen, but is not actually transmitted until you enter a carriage return.
`-r [e]`	Remote echo. Turn local echo off.

Command element	Description
hostname	IP address or Domain Name System (DNS) name of a networked host.
portnumber	Port number for `telnet` sessions. The default port is 23.

Example To open a `telnet` session to `host-231`:

```
admin> telnet host-231
Connecting to host-231 (10.65.12.231)...
Escape character is '^]'
Connected
```

You can also open a session after starting the `telnet` program. To display the available commands:

```
admin> telnet

telnet> ?
?                   Displays this information.
help                   "     "          "
open                Connect to a site.
quit                Quit Telnet.
close               Close current Telnet connection.
send                Send Telnet command. Type 'send ?' for help.
set                 Set special char. Type 'set ?' for help.
```

Note During an open `telnet` connection, type the Ctrl key plus a right square bracket (Ctrl+]) to display the `telnet>` prompt and the `telnet` command-line interface. Any valid `telnet` command returns you to the open session. Note that Ctrl+] does not function in binary mode `telnet`. If you log into the Stinger unit by `telnet`, you might want to change its escape sequence from Ctrl+] to a different setting.

See Also `ping`

terminal-server

Description Starts terminal-server mode, which has its own command interface.

Permission level `termserv`

Usage `terminal-server`

Example To enter terminal-server mode and display the list of available commands:

```
admin> terminal-server
admin% ?
?                   Display help information
help                   "     "        "
quit                Closes terminal server session
hangup                 "      "       "       "
local               Go to local mode
remote              remote <station>
set                 Set various items. Type 'set ?' for help
show                Show various tables. Type 'show ?' for help
iproute             Manage IP routes. Type 'iproute ?' for help
telnet              telnet [-a|-b|-t] <host-name> [<port-number>]
tcp                 tcp <host-name> <port-number>
ping                ping <host-name>
traceroute          Trace route to host. Type 'traceroute -?' for help
rlogin              rlogin [-l user -ec] <host-name>
```

To exit terminal server mode:

```
admin% quit
admin>
```

See Also `ping, telnet`

thermalstatus

Description Displays a number of temperature-related values to show the overall thermal status of the unit. The values include:

- Ambient temperature at fan tray intake.
- Shelf-controller temperature.
- High, low, and alarm temperature thresholds.
- Slot-card temperature for slot cards that support temperature reporting. Currently, no slot cards support thermal information reporting.
- Power supply thermal status, and whether the power supplies are in an overheated state.
- Fan tray status, including the fan tray operational mode, low-noise speed in revolutions per minute (RPM), current fan mode, and current speed of each fan in RPMs.

Permission level `system`

Usage `thermalstatus`

Example To display the overall thermal status of the unit:

```
admin> thermalstatus
System Thermal status
 Ambient temperature at intake : 27 C (80 F)
 Shelf controller temperature  : 35 C (95 F)
 High temperature threshold  : 36 C (96 F)
 Low temperature threshold   : 32 C (89 F)
 Alarm temperature threshold : 38 C (100 F)
Slot cards:
 (no slot cards contain thermal information)

Power supply thermal status
  Power Supply #       Temp
================================
    A                 OK
    B                 OK
    C                 n/a
    D                 OK


Fantray status
 Fan operational mode:  auto-regulation
 Low-noise RPM:         2000
 Current fan mode:      Full-speed
 Fan #         RPM              Status
=============================================
  1           3289             GOOD
  2           3214             GOOD
  3           3075             GOOD
  4           3143             GOOD
  5           3214             GOOD
  6           3289             GOOD
```

topology

Description Displays the topology of a hosted Stinger MRT system.

Permission level `diagnostic`

Usage `topology [ -p | -d | -s | -r ] Shelf_ID`

Command element	Description
With no options	Display the entire topology.
`-p`	Display a pictoral view of the topology.
`-d shelf`	Display the topology details of a shelf.
`-s shelf`	Display the statistics of a shelf.
`-r shelf`	Send an init packet from the host to a remote shelf without resetting the shelf.

Example In the following example, remote shelf 3 is connected to EXP1, and no remote shelves are connected after it. On EXP2 remote shelf 2 is connected, followed by remote shelf 5.

```
admin> topology
Slaves connected to EXP1 of Master
==================================
ShelfId                          : 3
Operational State                : UP
Admin State                      : UP
Position                         : 1
MrtType                          : STINGER_MRT_23INCH_PLATFORM
MRT Connected to Exp1            : 1
MRT Connected to Exp2            : 16
Port connected to - On Master    : 0
Port connected to - On Slave     : 0

Slaves connected to EXP2 of Master
==================================
ShelfId                          : 2
Operational State                : UP
Admin State                      : UP
Position                         : 1
MrtType                          : STINGER_MRT_23INCH_PLATFORM
MRT Connected to Exp1            : 1
MRT Connected to Exp2            : 5
Port connected to - On Master    : 1
Port connected to - On Slave     : 0

ShelfId                          : 5
Operational State                : UP
Admin State                      : UP
Position                         : 2
MrtType                          : STINGER_MRT_23INCH_PLATFORM
MRT Connected to Exp1            : 2
```

```
MRT Connected to Exp2           : 16
Port connected to - On Master   : 1
Port connected to - On Slave    : 0
```

Field	Description
ShelfId	ID of the remote shelf.
Operational State	Operational state of the remote shelf.
Admin State	State set by the administrator, either in a profile or by using a command.
Position	Position of the remote shelf relative to the host.
MrtType	Description of the Stinger MRT platform.
MRT Connected to Exp1	ID of shelf connected to that EXP1 port. The string ANY-SHELF indicates an invalid shelf ID. The number 16 indicates that no remote shelf is connected to the port.
MRT Connected to Exp2	ID of shelf connected to that EXP2 port. The string ANY-SHELF indicates an invalid shelf ID. The number 16 indicates that no remote shelf is connected to the port.
Port connected to - On Master	The cascade port used by the host to connect to the remote shelf. The string ANY-PORT indicates an invalid port number.
Port connected to - On Slave	The cascade port used by the remote shelf to connect to host. The string ANY-PORT indicates an invalid port number.

Example For a picture of the topology, use the `topology -p` command. For example:

```
admin> topology -p
                    --------------------
                    |    MASTER: 1     |
               EXP1-----------------------------EXP2
                 |                                |
                 |                                |
        -------EXP1-------              -------EXP1-------
        | Slave     : 5  |              | Slave     : 4  |
        -------EXP2-------              -------EXP2-------
                 |                                |
                 |                                |
        -------EXP1-------              -------EXP1-------
        | Slave     : 3  |              | Slave     : 6  |
        -------EXP2-------              -------EXP2-------
```

Example You can also display the details about a particular shelf by using the `topology -d` command and specifying the remote shelf ID. For example:

```
admin> topology -d 5
ShelfId               : 5
Operational State     : UP
Admin State           : UP
Position              : 2
MrtType               : STINGER_MRT_23INCH_PLATFORM
MRT Connected to Exp1 : 2
MRT Connected to Exp2 : 16
Port connected to - On Master : 1
Port connected to - On Slave  : 0
```

Example To display statistics about the types of packets received and sent to a particular shelf, use the `topology -s` command with the remote shelf ID. For example:

```
admin> topology -s 3
Statistics of Shelf: 3
discovery restart     : 0
Number of requests received
Valid             : 1
Duplicate ShelfId : 0
Admin State not UP: 0
Invalid           : 0
Discarded         : 0
Number of Ack Sent    : 1
Number of Nack Sent   : 0
Number of Reset Sent  : 0
Number of Init Sent   : 0
```

Field	Description
`discovery restart`	Number of times autodiscovery has been restarted.
`Number of requests received`	
`Valid`	Count of valid requests received.
`Duplicate ShelfId`	Another MRT sent requests with this shelf ID.
`Admin State not UP`	Request was received when administrative state for this shelf was down or unknown.
`Invalid`	An invalid request was received. A request is invalid is it contains a protocol Id or version mismatch, or is sent from invalid intermediate shelf.
`Discarded`	Request discarded, which might indicate that the intermediate shelf is down.
`Number of Ack Sent`	Number of Acks sent to the shelf.
`Number of Nack Sent`	Number of Nacks sent to the shelf.
`Number of Reset Sent`	Number of Resets sent to the shelf.

Field	Description
Number of Init Sent	Number of Inits sent to the shelf.

Example When you specify shelf ID 1, indicating the host, the `topology -s` command displays the number of erroneous packets received. For example:

```
admin> topology -s 1
Discarded packets   : 0
Request Rcvd with Invalid ShelfID   : 0
```

Field	Description
Discarded packets	Packets discarded due to header errors, intermediate shelves being down. No action had been taken on these packets, they were silently discarded.
Request Rcvd with Invalid ShelfID	Autodiscovery received from with invalid shelf ID (a shelf ID outside the range from 2 to 7).

Example If you execute the `topology -s` command on the remote shelf, statistics are displayed for that shelf only. For example:

```
admin> open 3 8

SLAVE3/8>> topology -s
Statistics of Shelf: 3
Discarded packets       : 0
Discovery restart       : 0
Number of Req Sent      : 126
Number of Ack Rcvd      : 0
Number of Nack Rcvd     : 0
Number of PassThruReq   : 0
Number of PassThruRep   : 0
Number of Init Rcvd     : 0
Number of Reset Rcvd    : 0
```

Field	Description
Discarded packets	Packet discarded due to header errors.
Discovery restart	Number of times Auto Discovery has been restarted.
Number of Req Sent	Number of Auto Discovery Request sent.
Number of Ack Rcvd	Number of Acks received from the host.
Number of Nack Rcvd	Number of Nacks received from the host.
Number of PassThruReq	Number of pass through request forwarded.
Number of PassThruRep	Number of pass through replies forwarded.
Number of Init Rcvd	Number of Inits received from the host.
Number of Reset Rcvd	Number of Resets received from the host.

Example Usually, the host sends an init packet to a remote shelf only if its administrative state is UP and its operational state is DOWN. To restart autodiscovery between the host and a remote shelf without resetting the shelf, use the `topology -r` command and specify the shelf's ID. For example:

```
admin> topol -r 2
```

traceroute

Description Traces the route an IP packet follows by launching User Datagram Protocol (UDP) probe packets with a low time-to-live (TTL) value and then listening for an Internet Control Message Protocol (ICMP) `time exceeded` reply message from a router. Probes start with a TTL of 1 (one) and increase by 1 until either a probe packet reaches the destination host or the TTL reaches the maximum.

Three probes are sent at each TTL setting. The second line of command output shows the address of the router and round-trip time of each probe. If the probe answers come from different gateways, the address of each responding system is printed. If the Stinger unit receives no response within a 3-second timeout interval, the command output is an asterisk (*).

The destination host is not supposed to process the UDP probe packets, so the destination port is set to an unlikely value, such as 33434. When the packets reach the destination host, it sends back an ICMP `port unreachable` message.

Permission level `diagnostic`

Usage `traceroute [-n] [-v] [-m max_ttl] [-p port] [-q nqueries] [-w waittime] [-s src_IPaddr] hostname [datasize]`

Command element	Description
`-n`	Print hop addresses numerically rather than symbolically and numerically. (This option eliminates a name server address-to-name lookup for each gateway found on the path.)
`-v`	Verbose output. Include received ICMP packets other than `time exceeded` and `ICMP port unreachable`.
`-m max_ttl`	Maximum TTL (maximum number of hops) used in outgoing probe packets. The default is 30 hops.
`-p port`	Base UDP port number used in probes. If a device is listening on a port in the default range, this option can be used to pick an unused port range. The default is 33434.
`-q nqueries`	Maximum number of queries for each hop. The default is 3.
`-w waittime`	Time to wait for a response to a query. The default is 3 seconds.
`-s src_IPaddr`	IP address of the source host.

Command element	Description
hostname	IP address or Domain Name System (DNS) name of a networked host.
datasize	Size of the data field of the UDP probe datagram sent by `traceroute`. The default is `0` (zero), which results in a datagram size of 38 bytes (a UDP packet carrying no data).

Example To trace the route to `host-231`:

```
admin> traceroute host-231
traceroute to host-231 (10.65.12.231), 30 hops max, 0 byte packets
 1  host-231.abc.com (10.65.12.231)  0 ms  0 ms  0 ms
```

To perform the same trace, but with a maximum TTL of 60 hops:

```
admin> traceroute -m 60 host-231
traceroute to host-231 (10.65.12.231), 60 hops max, 0 byte packets
 1  host-231.abc.com (10.65.12.231)  0 ms  0 ms  0 ms
```

The following annotations can appear in the command output after the `time` field:

Output annotation	Description
`!H`	Host reached.
`!N`	Network unreachable.
`!P`	Protocol unreachable.
`!S`	Source route failed. Occurrence of this event might indicate a problem with the associated device.
`!F`	Fragmentation needed. Occurrence of this event might indicate a problem with the associated device.
`!?`	ICMP subcode. The event indicates an error.
`!??`	Reply received with inappropriate type. The event indicates an error.

See Also `ping, netstat`

U

uptime

Description Reports the number of days, hours, minutes, and seconds the system and individual modules have been active (in the Up state).

Permission level system

Usage uptime [[-a] | [[*shelf*] *slot*]]

Command element	Description
No options	Display the system uptime.
-a	Display the time all modules in the Up state have been active.
slot	Display the amount of time for the specified module on the master shelf has been active.
shelf slot	Display the amount of time for the module specified by shelf and slot has been active (Up).

Example The following example shows the amount of time that all modules in the Up state have been active. (Modules that are not in the Up state are not reported.)

```
admin> uptime -a
17:50:44
{ shelf-1 slot-4 } al-dmtadsl-atm-card      0 days 02:45:42    8.0a0e0
{ shelf-1 slot-6 } sdsl-atm-card            0 days 02:45:48    8.0a0e0
{ shelf-1 control-module } shelf-controller 0 days 02:47:05    8.0a0e0
```

Note To enable network management stations to obtain uptime information, the following SNMP variable has been added to the Ascend Enterprise Management Information Base (MIB):

```
slotLastChange   OBJECT-TYPE
     SYNTAX      TimeTicks
     ACCESS      read-only
     STATUS      mandatory
     DESCRIPTION "The value of sysUpTime at the time the slot card
                  entered its current state."
     ::= { slotEntry 9 }
```

The slotLastChange variable reports the value of sysUpTime at the time the module entered its current state.

usergroupcheck

Description Enables validation of user and group specifications.

Permission level system

Usage usergroupcheck [-u *user* | -g *group*] [-a]

Command element	Description
-u *user*	Verify the user-group profile specified by the user-group parameter in the user profile called *user*, and display the commands to which *user* has access.
-g *group*	Verify that the user-group profile specified by *group* specifies a valid list of commands. If the command user group contains commands that are valid on a module, this option displays the commands.
-a	Verify that all user-group profiles specify valid lists of commands, and that all user-group profiles specified by user profiles are valid.

Example For example, to verify the user-group profile specified in the user profile called bill:

```
admin> usergroupcheck -u bill
Group provisioning: Commands all valid.
Commands available to this user are:
     ?                              ( user )
     auth                           ( user )
     clear                          ( user )
     date                           ( user )
     delete                         ( update )
     dtunnel                        ( user )
     filtcache                      ( user )
     get                            ( system )
     gre                            ( user )
     grep                           ( user )
     help                           ( user )
     l2tp                           ( user )
     l2tpcards                      ( user )
     l2tpsessions                   ( user )
     l2tptunnels                    ( user )
     list                           ( system )
     netware                        ( user )
     new                            ( system )
     prtcache                       ( user )
     quit                           ( user )
     whoami                         ( user )
     write                          ( update )
```

Example To verify that the newyork command user group contains a valid list of commands:

```
admin> usergroupcheck -g newyork
Group provisioning commands all valid
```

Example To verify that all user-group profiles specify valid lists of commands, and that all user-group profiles specified by user profiles are valid:

```
admin> usergroupcheck -a
```

All groups and users verified

userstat

Description Displays user session status.

Permission level system

Usage userstat [[-s | -k *sessionID* | -a *ipaddress* | -u *username* | -l | -d] [-o *format*]] .

Command element	Description
No options	Display user session status.
-s	Show users (default).
-k *sessionID*	Terminate a user session.
-a *ipAddress*	Show the session with a matching IP address.
-u *username*	Show the session with a matching username.
-l	Display the output in wide format (more than 80 characters).
-d	Dump the session. Do not pass session output through more format values.
-o *format*	Show only the details specified. By default, all information is displayed. Replace format with one or more of the following to focus the display: ■ %i—Session ID ■ %l—Physical address (Line/chan) ■ %s—Location (Slot:Item) ■ %r—Transmit and receive rates (Tx/Rx rate) ■ %d—Type of service (Svc) ■ %a—Address ■ %u—Username ■ %c—Connection time ■ %t—Idle time ■ %n—Dialed number

Example To display user session status:

```
admin> userstat
SessionID  Line/Chan  Slot:Item  Tx/Rx Rate  Svc Address      Username
228687860  1.01.02/01 1:03:01/01 56K/56K     TCP 10.100.0.1   barney
228687861  1.02.03/02 1:04:02/00 28800/33600 TCP 10.168.6.24  jake
<end user list> 2 active user(s)
```

The display output contains the following fields:

Field	Description
SessionID	Unique ID assigned to the session.
Line/Chan	Physical address (*shelf.slot.line/channel*) of the network port on which the connection was established.
Slot:Item	Location (*Shelf:slot:item/logical-item*) of the host port to which the call was routed.
Tx/Rx Rate	Transmit and receive rates.
Svc	Type of service in use for the session. Following are the possible values: ■ ---—(The service is being negotiated.) ■ SLP—Serial line IP ■ TLN—telnet ■ BTN—Binary telnet ■ TCP—Raw Transmission Control Protocol (TCP) ■ TRM—Terminal server ■ VCN—Virtual connect ■ DTP—DTPT
Dialed#	The number dialed to initiate this session. (This information appears only when you use the -l option.)
ConnTime	The amount of time (in *hours:minutes:seconds* format) since the session was established. (This information appears only when you use the -l option.)
IdleTime	The amount of time (in *hours:minutes:seconds* format) since data was last transmitted across the connection. (This information appears only when you use the -l option.)

Example If you use the -o option and indicate the codes for session ID and line or channel information, the command shows only the following details:

```
admin> userstat -o %i %l
SessionID Line/Chan
228687860  1.01.02/01
228687861  1.02.03/02
<end user list> 1 active user(s)
```

Example To terminate a user session, include the `-k` option and session ID with the `userstat` command:

```
admin> userstat

SessionID  Line/Chan   Slot:Item      Rate  Svc     Address         Username
246986325  1.01.02/01  1:13:01/000    33600 TCP     100.100.8.2
100.100.8.2
<end user list>  1 active user(s)

admin> userstat -k 246986325
Session 246986325 cleared
```

V

vdsllines

Description Displays the status of all very-high-bit-rate digital subscriber lines (VDSL).

Permission level `system`

Usage `vdsllines [ -a | -d | -f | -sh shelf | -sl shelf slot | -u ]`

Command element	Description
`-a`	Show all VDSL lines.
`-d`	Show disabled lines.
`-f`	Show all free lines.
`-sh shelf`	Limit the output to lines on the specified shelf.
`-sl shelf slot`	Limit the output to lines on the specified slot.
`-u`	Show in-use lines.

Example To show all free lines:

```
admin> vdsllines -f
Free VDSL lines:
                        (dvOp   dvUpSt  dvRq    sAdm    nailg)
Line    {    1  4  3 } (Down   Idle    UP      UP      00153)
Line    {    1  4  4 } (Up     Idle    UP      UP      00154)
```

The data displayed includes the physical address of each line and the following status information:

Field	Description
`dvOp`	Current operational state of the line: ■ `Down` indicates that the line is in a nonoperational state. ■ `Up` indicates that the line is in normal operations mode.

Field	Description
dvUpSt	Status of the line in normal operations mode: ■ Idle indicates that no call is on the line. ■ Active indicates that the line is handling a call.
dvRq	Required state of the line: ■ Down indicates that the line is required to be nonoperational. ■ Up indicates that the line is required to be in normal operations mode.
sAdm	Desired administrative state of the line: ■ Down specifies that the line should terminate all operations and enter the deactivated state. ■ Up specifies that the line should be activated in normal operations mode. The actual state of the line can differ from the desired state, as when a device is powering up, or you change the desired state on a running slot. Changing the desired state does not automatically change a line to the desired state. It indicates that an operation has been initiated (for example, someone has dialed in) that should change the Stinger unit to the desired state.
nailg	Dedicated (nailed) group to which the line is assigned.

version

Description Displays the current system software version, control module revision number, and control module model number.

Permission level system

Usage version

Example To display version information:

```
admin> version

Software version 9.2-167
* * * 9_2-167/stngrcm2 <satishb> Jun 01 2002 04:09 * * *
Hardware revision: 2.0  Model A
```

Dependencies If no hardware revision is displayed, a revision 1 control module is present and is running a software version earlier than TAOS 9.1-142. The system displays the control module model number only if a revision 2 control module is present.

view

Description Changes the information displayed in the top or bottom status window.

Permission level system

Usage view *position status-type*

Command element	Description
position	Area of the status window to be affected by the command: ■ top ■ bottom ■ left
status-type	Type of status information to display. ■ If the specified window position is top or bottom, the window can display one of the following types of status information: – general—General status information – log—32-message log buffer – line—Line and channel status ■ If the specified window position is left, the window can display one of the following types of status information: – connection—WAN connection status – session—Management status

Example To display session information:

```
admin> view left session
```

```
3 Sessions                 1/13/8   RA ........ ........ ........
          console
admin      135.254.196.37
pratul     135.254.196.37


                           M: 48 L: info Src: shelf-1/controller


                                     Issued: 16:48:02, 09/27/2002
[Next/Last Conn:<dn/up arw>, Next?Last Page: <pg dn/up>, Exit: <esc>]
```

See Also connection, ledoff, log

vrouter

Description Displays entries in the virtual router (VRouter) table.

Permission level system

Usage vrouter [dump [full]]

Command element	Description
dump	Display the entries in the VRouter table.
full	Display extended information about the entries in the VRouter table.

Example To display VRouter table entries:

```
admin> vrouter dump
Total number of VRouters = 1
Index = 1, Name = cli, ID = 1
```

W

wandisplay

Description Specifies the number of bytes of a WAN message display.

Permission level diagnostic

Usage wandisplay *n*

Command element	Description
n	Number of bytes to display. A 0 (zero) turns off the display.

Example To display the first 25 bytes of each WAN message:

```
admin> wandisplay 25
Display the first 25 bytes of WAN messages
```

See Also wanopening, wandsess

wandsess

Description Enables you to specify the number of bytes to display for a single WAN session.

Permission level diagnostic

Usage wandsess *sess n*

Command element	Description
sess	Local or RADIUS profile name used to specify the session.
n	Number of bytes to display.

Example admin> **wandsess tim 120**

```
admin> wandsess bob 160

admin> wandsess
         120    tim
         160    bob
```

See Also wandisplay, wannext, wanopening

wannext

Description Specifies the number of bytes of a WAN message to display for the next call only.

Permission level diagnostic

Usage wannext *n*

Command element	Description
n	Number of bytes to display. A 0 (zero) turns off the display.

Example To display 25-byte WAN messages for the next call:

```
admin> wannext 25

Display the first 25 bytes of WAN messages for the NEXT call
```

See Also Wandisplay, wandsess, wanOpening

wanopening

Description Specifies the number of bytes of a WAN opening message to display.

Permission level `diagnostic`

Usage `wanopening` *n*

Command element	Description
n	Number of bytes to display. A 0 (zero) turns off the display.

Example To display 50 bytes of each WAN opening message:

```
admin> wanopening 50
Display the first 50 bytes of WAN messages during OPENING only
```

See Also `wandisplay, wandsess`

which

Description Enables you to look up the dedicated (nailed) group associated with the port used for an Asynchronous Transfer Mode (ATM) connection.

Permission level `system`

Usage `which [ -p | -n ] [ -c ]` *port* | *group* [*ifType*]

Command element	Description
`-p`	Show the port—and channel, for the IDSL line interface module (LIM)—associated with the dedicated (nailed) group indicated by *group*.
`-n`	Show the dedicated (nailed) group or groups associated with the port indicated by *port*, in {*shelf slot item*} format.
`-c`	List the connections associated with the nailed group or port.
port	Physical address of the port.
group	Dedicated group number.
ifType	IANA interface type.

Example To display the port associated with dedicated (nailed) group 21:

```
admin> which -p 21
The port corresponding to nailed group 21 is:
{ shelf-1 slot-1 21 }
```

Add the `-c` option to include a display of the connections associated with this dedicated (nailed) group:

```
admin> which -p -c 21
The port corresponding to nailed group 21 is:
{ shelf-1 slot-1 21 }
The connection(s) associated with this nailed group are:
lim-1-21-ckt-1
lim-1-21-ckt-8
lim-1-21-ckt-7
lim-1-21-ckt-6
lim-1-21-ckt-5
lim-1-21-ckt-4
lim-1-21-ckt-3
lim-1-21-ckt-2
```

Example To display the dedicated (nailed) group corresponding to port 1 of an IDSL module in slot 13:

```
admin> which -n {1 13 1}
Nailed group corresponding to port { shelf-1 slot-13 idsl-1 channel 1 } is
601
Nailed group corresponding to port { shelf-1 slot-13 idsl-1 channel 2 } is
601
Nailed group corresponding to port { shelf-1 slot-13 atm-internal-1} is 633
```

Note For the IDSL line interface module (LIM), the dedicated (nailed) groups assigned to both BRI channels and the dedicated (nailed) group assigned to the ATM interface are displayed. The ATM Internal interface has the same physical address as the first BRI channel. The IDSL line is identified by `idsl-` before the line number. The ATM Internal interface is identified by `atm-internal-` before the line number.

Example You can use the `which` command to determine which port is in use when you have the dedicated (nailed) group assignment of a `connection` profile. For example, if the circuit uses `nailed-group 296`:

```
admin> which -p 296
The port corresponding to nailed group 296 is: { shelf-1 slot-6 46 }
```

In the case of the port on an IDSL card, if the circuit uses `nailed-group 601`, and `nailed-group 633` as its ATM internal interface:

```
admin> which -p 601
The port corresponding to nailed group 601 is:
{ shelf-1  slot-13 idsl-1 chan-1 }
{ shelf-1  slot-13 idsl-1 chan-22 }

admin> which -p 633
The port corresponding to nailed group 633 is: { shelf-1 slot-13
atm-internal-1}
```

Example If the argument specifies a slot that is not populated, or a dedicated (nailed) group that is not assigned, the command returns a message that the number was not found. For example:

```
admin> which -p 43
The port corresponding to nailed group 43 is:
NONE!
```

Example If more than one port has the same dedicated (nailed) group associated with it (which is illegal), the `which` command returns all the ports that have this dedicated (nailed) group. Using the `which` command can be a convenient way to find duplicate dedicated (nailed) groups. For example:

```
admin> read sdsl {1 6 46}
SDSL/{ shelf-1 slot-6 46 } read

admin> set line-config nailed-group=801

admin> write
SDSL/{ shelf-1 slot-6 46 } written

admin> which -p 801
The port corresponding to nailed group 801 is:
{ shelf-1 slot-6 46 }
{ shelf-1 trunk-module-1 1 }
```

Duplicate dedicated (nailed) group assignments can occur only when you change default nailed-group numbers. To fix the problem, change the dedicated (nailed) group assignments in one or more profiles, and then verify by using the `which` command again.

Dependencies The following rules apply when using the `which` command:

- If you enter a physical address, the system assumes the logical item to be zero.
- If you do not enter an IANA interface type, the system attempts to guess the IANA type of the given address.
- For an IDSL port, the format {{ *shelf slot item*}0} represents an entire line.

who

Description Enables you to display information about or disconnect administrative users.

Permission level `system`

Usage `who [am i ]|[-k username IPaddress]`

Command element	Description
No options	Display the names of administrative users, `user` profiles, and IP addresses of administrative users from `telnet` sessions.
`am i`	Display the current user and `user` profile for an administrative session.
`-k` *username IPaddress*	Disconnect an administrative session for a specified user at a specified IP address.

Example Without any arguments, the output of the command displays names of administrative users, `user` profiles, and IP addresses of administrative users from Telnet sessions. An asterisk (*) denotes the current session. For example:

```
admin> who
  user                    profile                 from
                          super                   console
* admin                   admin                   135.254.196.37
  pratul                  admin                   135.254.196.37
```

To display the current user and `user` profile for an administrative session, use the `who am i` command. The output of this command is similar to the existing `whoami` command. For example:

```
admin> who am i
User Name : admin       User Profile : admin
```

To disconnect an administrative session, use the `-k` option with the `who` command. For example, the following command disconnects the user `pratul` logged in from IP address 200.254.96.37:

```
admin> who -k pratul 200.254.196.37
LOG critical, Shelf 1, Controller-1, Time: 05:24:17--
user admin from 200.254.196.37 disconnected user pratul from 135.254.196.37
1 administrative user killed.
```

The preceding command disconnects all sessions with the user name `pratul` logged in from IP address 200.254.96.7.

Dependencies You cannot use the `who -k` command to disconnect the current session or a session from the console if for its serial port the `user-profile` parameter in the `serial` profile is set to a value other than null.

whoami

Description Displays the name of the `user` profile associated with the current session.

Permission level `user`

Usage `whoami`

Example To display the name of your `user` profile:

```
admin> whoami
tommy
```

See Also `auth`

write

Description Validates the settings of the working profile and then writes it from the edit buffer to nonvolatile RAM (NVRAM).

If you modify a profile and do not use the `write` command before reading another profile, the changes are lost.

Permission level `update`

Usage `write [ -f]`

Command element	Description
`-f`	Force the write operation without prompting for confirmation, overwriting an existing profile if one exists with the same index.

Example To create a new `connection` profile, modify it, and write it to NVRAM:

```
admin> new conn newyork
CONNECTION/newyork read

admin> list
[in CONNECTION/newyork (new)]
station*=newyork
active=no
encapsulation-protocol=atm
called-number-type=national
dial-number=""
clid=""
ip-options={ yes yes 0.0.0.0/0 0.0.0.0/0 7 100 255 no no 0 +
session-options={ "" "" no 120 no-idle 120 "" }
telco-options={ ans-and-orig no off 1 no no 56k-restricted 0 +
usrRad-options={ global 0.0.0.0 1646 "" 1 acct-base-10 }
calledNumber=""

admin> write
CONNECTION/newyork written
```

Dependencies Consider the following:

- If the working profile has an index field—a parameter followed by an asterisk(*)—that parameter must have a value or the write operation is not allowed.
- If you issue a `write` command when the current profile has not been modified from the saved version, the write does not occur and the following message is displayed:

  ```
  admin> write
  Nothing new to write; nothing written.
  ```

  You can force the write to occur by using the `–f` option on the `write` command line.

Note The write always occurs if the profile has not been written previously.

See Also `list, new, read, set`

Stinger Profile Reference

2

A

access-properties

Description A subprofile that enables you to configure settings for the `vacm-access` profile.

Usage Following is a listing of the `access-properties` subprofile with its default settings:

```
[in VACM-ACCESS/{ "" "" v1 no+ }:access-properties]
group-name = ""
context-prefix = ""
security-model = v1
security-level = none
```

action

Description A subprofile that specifies the action performed by the Stinger unit when it detects the event specified by the `event` parameter setting.

Usage Following is a listing of the `action` subprofile with its default settings:

```
[in ALARM/robin:action]
alarm-led-minor=off
alarm-led-major=off
alarm-relay-minor=off
alarm-relay-minor-duration=0
alarm-relay-major=off
alarm-relay-major-duration=0
```

addr-index

Description A subprofile that defines the index to the summary address.

Usage Following is a listing of the `addr-index` subprofile with its default settings:

```
[in PNNI-SUMMARY-ADDR/"":addr-index (new)]
node-index = 0
type = internal-summary
address = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
prefix-len = 0
```

ADMIN-STATE-PERM-IF

Description A read-only profile that holds information about the Stinger dedicated (nailed) interfaces. The system creates a profile for an active dedicated interface and assigns it an interface index.

Usage Read-only. Following is a sample listing of the `admin-state-perm` profile:

```
[in ADMIN-STATE-PERM-IF/frdevice1]
station*=frdevice1
snmp-interface=19
desired-state=admin-state-up
desired-trap-state=trap-state-enabled
inet-profile-type=1
```

ADMIN-STATE-PHYS-IF

Description A read-only profile that indicates information about the system's physical interfaces. The system creates a profile for each of its physical interfaces.

Usage Read-only. Following is a sample listing of the `admin-state-phys-if` profile:

```
[in ADMIN-STATE-PHYS-IF/{ shelf-1 slot-1 1 }]
device-address* = { shelf-1 slot-1 1 }
slot-type = dadsl-atm-24-card
snmp-interface = 13
modem-table-index = 0
desired-state = admin-state-down
desired-trap-state = trap-state-enabled
```

ADSL-BIN-LOADING

Description A profile that enables you to configure frequency bin-loading settings for ADSL lines. You mask or disable an unwanted frequency using the `bin-loading` parameter. The `AL-DMT:bin-loading` subprofile displays the `adsl-bin-loading` profile configured for a specific ADSL line.

Usage Following is a listing of the `adsl-bin-loading` profile with its default settings:

```
[in ADSL-BIN-LOADING/default (new)]
name* = default
bits-per-bin = 14
bin-loading = [ yes yes yes yes yes yes yes yes yes yes yes yes yes+
```

ALARM

Description A profile that enables you to configure the unit's status lights (LEDs) and alarm relays to respond to specific conditions.

Usage Following is a listing of the `alarm` profile with its default settings:

```
[in ALARM/robin]
name*=robin
enabled=no
event=line-state-change
physical-address={ any-shelf any-slot 0 }
action={ off off off 0 off 0 }
```

Note You can configure default `ALARM` profiles that apply to the entire Stinger unit by setting the `physical-address` parameter to `{ 0 0 0 }` (any shelf, any slot, any item).

See Also `action`

alarm-id

Description A subprofile that identifies an alarm by shelf and module.

Usage Following is a listing of the `alarm-id` subprofile with its default settings:

```
[in ALARM-STAT/{ { shelf-1 trunk-module-1 1 } line-state-change+]
alarm-id* = { { shelf-1 trunk-module-1 1 } line-state-change }
alarm-state = alarm-active
```

See Also `alarm` (command), `ALARM-STAT`

ALARM-STAT

Description A read-only profile that indicates the status of alarms. When there are alarms, `alarm-stat` parameters are created. The profile lists an `alarm-id` subprofile for each of the alarms that have occurred. The `alarm-id` subprofile consists of the physical address of the device that has the alarm condition and an indication of the alarm event.

Usage Read-only. Following is a sample listing of the `alarm-stat` profile:

```
[in ALARM-STAT/{ { shelf-1 trunk-module-1 1 } line-state-change+]
alarm-id* = { { shelf-1 trunk-module-1 1 } line-state-change }
alarm-state = alarm-active
```

See Also `alarm-id`

AL-DMT

Description A profile that enables you to configure each of the 12 asymmetric digital subscriber line (ADSL) ports on each installed Asynchronous Transfer Mode (ATM) ADSL line interface module (LIM).

Usage Following is a listing of an `al-dmt` profile for the device on shelf 1, slot 4 with its default settings:

```
[in AL-DMT/{ shelf-1 slot-4 1 }]
name=1:4:1
physical-address*={ shelf-1 slot-4 1 }
enabled=yes
sparing-mode = inactive
ignore-lineup = system-defined
line-config={ 0 301 static { any-shelf any-slot 0 } +
fast-path-config={ 10 50 1000 8000 200 1000 }
interleave-path-config={ 0 0 0 0 0 0 16 16 }
margin-config={ 6 6 0 0 31 31 0 0 0 0 0 0 0 0 }
thresh-profile = default
bin-loading-profile = default
```

AL-DMT-STAT

Description A read-only profile that provides statistics and connection status for each rate adaptive digital subscriber line (RADSL) interface.

Usage Read-only. Following is a sample listing of the `al-dmt-stat` profile:

```
[in AL-DMT-STAT/{ shelf-1 slot-4 1 }]
physical-address* = { shelf-1 slot-4 1 }
line-state = active
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-7-vci-32-255
vp-switching-vpi = 7
physical-status = { 155 coe port-up 0 0 512000 2336000 interleave +
physical-statistic = { { 4 1 43 } yes 2 passed 4 7 3 6 0 11 40142 231 65 +
```

ANSWER-DEFAULTS

Description A profile that enables you to configure system defaults for incoming session requests. The system uses the values in this profile before it answers an incoming call. The values you set override factory defaults.

Usage Following is a listing of the `answer-defaults` profile with its default settings:

```
[in ANSWER-DEFAULTS]
use-answer-for-all-defaults = yes
force-56kbps = no
profiles-required = yes
clid-auth-mode = ignore
clid-selection = first
ppp-answer = { yes no-ppp-auth none "" yes 0 none 1524 no 600 600 1524+
mp-answer = { yes 1 2 }
mpp-answer = { yes quadratic transmit 1 1 15 5 10 70 }
fr-answer = { yes }
tcp-clear-answer = { yes }
ip-answer = { yes yes no 1 no }
session-info = { "" "" no 120 no-idle 120 0 }
atm-answer = { }
```

Dependencies Consider the following:

- Similar settings in a client's profile, which are applied after a call has been authenticated, always override the default settings in this profile.
- The following `answer-defaults` entries do not apply to Stinger units:

  ```
  force-56kbps = no
  clid-auth-mode = ignore
  clid-selection = first
  mp-answer = { yes 1 2 }
  mpp-answer = { yes quadratic transmit 1 1 15 5 10 70 }
  tcp-clear-answer = { yes }
  ```

answer-options

Description A subprofile that enables you to configure answering procedures within a `connection` profile.

Usage Following is a listing of the `answer-options` subprofile with its default settings:

```
[in CONNECTION/"":answer-options (new)]
profile-required = no
ans-default = no
profile-flags = no
clid-auth-mode = ignore
clid-selection = first
```

APS-CONFIG

Description A profile that enables you to configure the protection group in a channel that uses automatic protection switching (APS). The protection group is created for each OC3-ATM trunk port on the trunk aggregation module when the `aps-config` profile is configured and activated, and is referred to from an `oc3-atm` profile by its `aps-config-name` parameter.

Usage Following is a listing of an `aps-config` profile named `pg1` with its default settings:

```
[in APS-CONFIG/pg1 (new)]
name = pg1
active = no
linear-protection-channel = { 1 trunk-module-1 2 }
protection-mode = 1+1
direction-mode = bidirectional
revertive-mode = revertive
wtr-timer-duration = 30000
psbf-failure-timer-duration = 250
psbf-clear-timer-duration = 1000
mode-mismatch-failure-timer-duration = 250
mode-mismatch-clear-timer-duration = 1000
channel-mismatch-failure-timer-duration = 250
channel-mismatch-clear-timer-duration = 1000
fepl-mismatch-failure-timer-duration = 250
fepl-mismatch-clear-timer-duration = 1000
protection-channel-signal-degrade-exponent = 6
protection-channel-signal-failure-exponent = 3
working-channel-signal-degrade-exponent = 6
working-channel-signal-failure-exponent = 3
```

APS-STAT

Description A read-only profile that is created whenever a protection group is activated. The profile is indexed by the protection group's name.

Usage Read-only. Following is a sample listing of an `aps-stat` profile called `pg1`:

```
[in APS-STAT/pg1]
name = pg1
protection-channel = { shelf-1 trunk-module-1 2 }
working-channel = { shelf-1 trunk-module-1 1 }
aps-state = on-working
bridge-status = True
last-switch-time = 0
switch-count = 0
aps-cfg-creation-time = 356537747
number-of-channels = 2
psbf-failure = False
channel-mismatch-failure = False
mode-mismatch-failure = False
fepl-failure = False
recv-psbf-count = 0
```

```
recv-mode-mismatch-count = 0
recv-channel-mismatch-count = 0
recv-fepl-count = 0
extra-traffic-flag = False
protection-mode = 1+1
direction-mode = bidirectional
revertive-mode = revertive
rx-k1-byte-value = 00
rx-k2-byte-value = 05
tx-k1-byte-value = 00
tx-k2-byte-value = 00
```

Note The parameters in this profile have no factory defaults. The Stinger system retrieves the value of each field from its automatic protection switching (APS) system information before it creates the profile and refreshes the profile periodically. The system creates a completely new profile whenever a protection group is activated and deletes it when the corresponding protection group is deactivated.

atm-aal-options

Description A subprofile that enables you to specify the ATM adaptation layer (AAL) type.

Usage Following is a listing of the `atm-aal-options` subprofile with its default values:

```
[in CONNECTION/"":atm-aal-options (new)]
aal-enabled = no
aal-type = aal-0
transmit-sdu-size = 1
receive-sdu-size = 1
```

ATM-ADDR-ALIAS

Description A profile that associates a text alias with an Asynchronous Transfer Mode (ATM) address or portion of an ATM address, up to a maximum of 22 bytes. After you define an alias, you can use the alias in place of the associated numbers in some contexts. The system also displays the alias name in the output of some commands.

Usage Following is a listing of the `atm-addr-alias` profile with its default settings:

```
[in ATM-ADDR-ALIAS/"" (new)]
alias-name* = ""
address = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
length = 0
```

See Also `PNNI-NODE-CONFIG`

ATM-CONFIG

Description *Deprecated and not used.*

See Also HIGH-SPEED-SLOT-STATIC-CONFIG
SLOT-STATIC-CONFIG

atm-connect-options

Description A subprofile that enables you to configure options for the second leg of an Asynchronous Transfer Mode (ATM) circuit.

Usage Following is a listing of an atm-connect-options subprofile with its default settings:

```
[in CONNECTION/"":atm-connect-options (new)]
atm1483type = aal5-llc
vpi = 0
vci = 35
atm-enabled = yes
nailed-group = 1
cast-type = p2p
conn-kind = pvc
vp-switching = no
target-atm-address =
00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
target-select = required
target-vpi = 0
target-vci = 0
spvc-retry-interval = 10
spvc-retry-threshold = 1
spvc-retry-limit = 0
atm-direct-enabled = no
atm-direct-profile = ""
vc-fault-management = none
vc-max-loopback-cell-loss = 1
fr-08-mode = translation
atm-circuit-profile = ""
oam-ais-f5 = disable
oam-support = yes
mtu = 1560
```

ATM-IF-CONFIG

Description A profile that enables you to configure Asynchronous Transfer Mode (ATM) interfaces.

Usage Following is a listing of the `atm-if-config` profile with its default settings:

```
[in ATM-IF-CONFIG/{ { shelf-1 slot-10 0 } 4 } (new)]
address* = { { shelf-1 slot-10 0 } 4 }
base-config = { 255 8192 8 13 0 0 0.0.0.0 ""
39:84:0f:80:01:bc:72:00:01:1a:dd:9+
extension-config = { atmf-uni-pvc-only other 0 1 5 4 private 255 255 32 +
```

See Also `base-config, extension-config`

ATM-IF-SIG-PARAMS

Description A profile that enables you to configure Asynchronous Transfer Mode (ATM) interface signaling parameters.

Usage Following is a listing of the `atm-if-sig-params` profile with its default values:

```
[in ATM-IF-SIG-PARAMS/{ { any-shelf any-slot 0 } 0 } (new)]
address* = { { any-shelf any-slot 0 } 0 }
q2931-options = { 2 1 180000 4000 30000 30000 10000 10000 30000 120000 +
qsaal-options = { 50 4 25 67 1000 0 0 0 15000 no no no }
```

ATM-IF-STAT

Description A read-only profile that indicates information about the state of the physical and logical interfaces.

Usage Read-only. Following is a listing of the `atm-if-stat` profile with sample settings:

```
[in ATM-IF-STAT/{ { shelf-1 slot-1 20 } 0 }]
address* = { { shelf-1 slot-1 20 } 0 }
if-number = 159
nailed-group = 20
port-state = down
signalling-state = not-configured
pnni-link-state = not-configured
ilmi-link-state = up
```

ATM-INTERNAL

Description A profile that enables you to configure the Asynchronous Transfer Mode (ATM) internal interface of line interface modules (LIMs) that require an internal interface to terminate ATM traffic, such as router and ISDN digital subscriber line (IDSL) modules.

Usage Following is a listing of the `atm-internal` profile with its default settings:

```
[in ATM-INTERNAL/{ any-shelf any-slot 0 }]
name = ""
physical-address* = { any-shelf any-slot 0 }
enabled = yes
line-config = { 1 15 }
traffic-shapers = [ { no 1000 1000 2 no 1 } { no 1000 1000 2 no 2 } { no +
```

Note The `atm-internal` network profile is enabled by default (`enabled = yes`). If you have previously disabled it, enable it if you intend to use an IDSL module, and save your changes.

ATM-INTERNAL-STAT

Description A profile that provides status parameters of the internal Asynchronous Transfer Mode (ATM) network.

Usage Following are the read-only parameters of the `atm-internal-stat` profile with typical values:

```
[in ATM-INTERNAL-STAT/{ shelf-1 slot-14 1 }]
physical-address* = { shelf-1 slot-14 1 }
line-state = active
vpi-vci-range = vpi-0-7-vci-32-255
vp-switching-vpi = 15
```

ATM-OAM

Description A profile that enables you to specify operation, administration and management (OAM) F4/F5 support via Simple Network Management Protocol (SNMP).

Usage Following is a listing of the `atm-oam` profile with its default settings:

```
[in ATM-OAM/{ { any-shelf any-slot 0 } 0 0 } (new)]
oam-address* = { { any-shelf any-slot 0 } 0 0 }
loopback-config = { no segment 1 0 no 1 30 }
continuity-config = { no segment }
```

Dependencies Consider the following:

- For every virtual path identifier-virtual channel identifier (VPI-VCI) pair for which a test is performed, you must create a separate `atm-oam` profile.
- When testing multiple circuits using one profile, you can run a loopback test only. One Asynchronous Transfer Mode (ATM) circuit is tested at a time. On each ATM circuit, a specified number of loopback cells are sent, with an interval of one second between each transmission. After the test on one circuit is complete, the unit tests the next circuit.
- Any changes made in an `atm-oam` profile restart the test. Only that test whose subprofile is changed is restarted.
- While testing one ATM circuit using one profile, loopback and continuity tests can be run concurrently.
- If the test is in a waiting stage and you change any of the test parameters, the unit restarts the test using the new parameters.

atm-options

Description A subprofile that enables you to configure options for an Asynchronous Transfer Mode (ATM) terminating connection on the first (incoming) leg of an ATM circuit.

Usage Following is a listing of the `atm-options` subprofile with its default settings:

```
[in CONNECTION/"":atm-options (new)]
atm1483type = aal5-llc
vpi = 0
vci = 35
atm-enabled = yes
nailed-group = 1
cast-type = p2p
conn-kind = pvc
vp-switching = no
target-atm-address =
00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
target-select = required
target-vpi = 0
target-vci = 0
spvc-retry-interval = 10
spvc-retry-threshold = 1
spvc-retry-limit = 0
atm-direct-enabled = no
atm-direct-profile = ""
vc-fault-management = none
vc-max-loopback-cell-loss = 1
fr-08-mode = translation
atm-circuit-profile = ""
oam-ais-f5 = disable
oam-support = yes
mtu = 1560
```

ATMP

Description A profile that enables you to configure Ascend Tunnel Management Protocol (ATMP) home agent or foreign agent operations, enabling the Stinger unit to operate as a home agent, a foreign agent, or both.

Usage Following is a listing of the `atmp` profile with its default settings:

```
[in ATMP]
agent-mode = home-agent
agent-type = gateway-home-agent
udp-port = 5150
home-agent-password =""
atmp-sap-reply = no
retry-timeout = 3
retry-limit = 10
idle-timer = 30
mtu-limit = 0
force-fragmentation = no
atmp-snmp-trap = no
```

Dependencies After configuring this profile, you must reset the system to begin ATMP operations.

atm-parameters

Description A subprofile of the `high-speed-slot-static-config` and `switch-config` profiles.

- In the `high-speed-slot-static-config` profile, the `atm-parameters` subprofile enables you to set the priority of the Asynchronous Transfer Mode (ATM) cells associated with the line interface module (LIM) or control module.
- In the `switch-config` profile, the `atm-parameters` subprofile enables you to set various ATM parameters for an outgoing queue. Each configured queue must be associated with an outgoing port, which is either a control module slot or a trunk port. Each outgoing port can have multiple outgoing queues.

Usage Following are listings of `atm-parameters` subprofiles:

- In the `high-speed-slot-static-config` profile:

  ```
  [in HIGH-SPEED-SLOT-STATIC-CONFIG:atm-parameters (new)]
  incoming-priority = low-priority
  ```

- In the `switch-config` profile:

  ```
  [in SWITCH-CONFIG/tram-18:atm-parameters]
  outgoing-queue = [ { yes 1:18:1 { shelf-1 trunk-module-2 1 } yes no no +
  outgoing-shaper = [ { 0 1 8000 } { 0 1 8000 } { 0 1 8000 } { 0 1 8000 } {+
  ```

ATM-PREFIX

Description A profile that enables you to configure an address or a prefix setting explicitly so that the system uses the setting you specify rather than the system-generated default.

Usage Following is a listing of the `atm-prefix` profile with its default settings:

```
[in ATM-PREFIX/default (new)]
prefix-name* = default
use-short-address = no
pnni-node-prefix = { 13 39:84:0f:80:01:bc:72:00:01:00:00:00:00 }
spvc-address-prefix = { 0 00:00:00:00:00:00:00:00:00:00:00:00:00 }
svc-address-prefix = { 0 00:00:00:00:00:00:00:00:00:00:00:00:00 }
```

Dependencies In the `atm-prefix` profile, when the soft permanent virtual connection (SPVC) and switched virtual connection (SVC) prefix addresses are zero (0), the SPVC prefix and SVC prefix take their values from the PNNI node prefix. Whenever you explicitly configure an address or a prefix setting, the system uses the value you specify rather than the system-generated default. If you delete the `atm-prefix` profile, the system creates a new one at the next system startup and derives the default prefix from the primary controller serial number.

ATMPVC-STAT

Description A read-only profile that monitors the status of an Asynchronous Transfer Mode (ATM) permanent virtual channel (PVC).

Usage Read-only. Following is sample listing of the `atmpvc-stat` profile:

```
[in ATMPVC-STAT/unit1]
circuit-name* = unit1
pvc-type = connecting
current-state = pvc-data-transfer
vcc-members = [ { shelf-1 trunk-module-1 1 0 120 801 } { shelf-1 slot-13 12+
magic-keys = [ 0 201326688 ]
```

ATM-QOS

Description A profile that enables you to configure Quality of Service (QoS) settings for an Asynchronous Transfer Mode (ATM) link.

Usage Following is a listing of the `atm-qos` profile with sample settings:

```
[in ATM-QOS/"" (new)]
contract-name* = ""
traffic-descriptor-index = 0
traffic-descriptor-type = noclp-noscr
atm-service-category = cbr
peak-rate-kbits-per-sec = 16
peak-cell-rate-cells-per-sec = 37
sustainable-rate-kbits-per-sec = 16
sustainable-cell-rate-cells-per-sec = 37
ignore-cell-delay-variation-tolerance = yes
```

```
cell-delay-variation-tolerance = 20
ignore-max-burst-size = yes
max-burst-size = 4
aal-type = aal-0
early-packet-discard = no
partial-packet-discard = no
tag-or-discard = discard
external-change = no
sub-channel = 1
```

Note To disable peak cell rate (PCR) policing, set `peak-rate-kbits-per-sec` and `cell-delay-variation-tolerance` values to zero (0).

Dependencies If you attempt to save an `atm-qos` profile and the `traffic-descriptor-type` and `atm-service category` parameters are set to incompatible settings, the Stinger unit generates an error message. Table 2-1 lists the compatible settings for the `atm-service category` and `traffic-descriptor-type` parameters.

Table 2-1. Compatible settings for the `atm-service-category` *and* `traffic-descriptor-type` *parameters*

`traffic-descriptor-type` parameter	**`atm-service-category` parameter**		
Setting	**`cbr`**	**`real-time-vbr` or `non-real-time-vbr`**	**`ubr`**
`noclp-noscr`	Valid		Valid
`noclp-scr`		Valid	
`clp-notagging-scr`		Valid	
`clp-tagging-scr`		Valid	
`clp-transparent-noscr`	Valid		
`clp-transparent-scr`		Valid	
`noclp-tagging-noscr`			Valid
`noclp-noscr-cdvt`	Valid		Valid
`noclp-scr-cdvt`		Valid	
`clp-notagging-scr-cdvt`		Valid	
`clp-tagging-scr-cdvt`		Valid	

atm-qos-options

Description A subprofile that specifies the traffic contract name(s) for the upstream and downstream traffic on the Asynchronous Transfer Mode (ATM) circuit.

Usage Following is a listing of the `atm-qos-options` subprofile with its default settings:

```
[in CONNECTION/tim:atm-qos-options]
usr-up-stream-contract=""
usr-dn-stream-contract=""
subtending-hops = 0-level
```

ATM-SPVC-ADDR-CONFIG

Description A profile that enables you to configure the address for an Asynchronous Transfer Mode (ATM) soft permanent virtual channel (SPVC).

Usage Following is a listing of the `atm-spvc-addr-config` profile with its default settings:

```
[in ATM-SPVC-ADDR-CONFIG/{ { shelf-1 slot-1 1 } 0 }]
index* = { { shelf-1 slot-1 1 } 0 }
spvc-atm-address =
39:84:0f:80:01:bc:72:00:01:11:37:93:00:ff:74:09:b7:3d:01:00
external-change = no
```

ATM-SPVC-CONFIG

Description A profile that enables you to configure an Asynchronous Transfer Mode (ATM) soft permanent virtual channel (SPVC).

Usage Following is a listing of the `atm-spvc-config` profile with its default settings:

```
[in ATM-SPVC-CONFIG (new)]
failure-trap-enable = yes
failure-notification-interval = 30
```

Dependencies This profile only appears on the interface when a corresponding Simple Network Management Protocol (SNMP) MIB table has been entered. The profile disappears from the interface when that MIB table is removed.

ATMVCC-STAT

Description A profile that provides status information about each side of a circuit. The system creates an `atmvcc-stat` profile for each virtual channel connection (VCC) interface.

Usage Following is a listing of an `atmvcc-stat` profile:

```
[in ATMVCC-STAT/{ shelf-1 slot-10 47 0 35 }]
vcc-ident* = { shelf-1 slot-10 47 0 35 }
circuit-name = kam-1
current-state = vcc-data-transfer
vcc-type = connecting
```

ATM-VCL-CONFIG

Description A profile that enables you to configure an Asynchronous Transfer Mode (ATM) virtual channel link (VCL).

Usage Following is a listing of the `atm-vcl-config` profile with its default settings:

```
[in ATM-VCL-CONFIG/{ { { any-shelf any-slot 0 } 0 } 0 0 } (new)]
id* = { { { any-shelf any-slot 0 } 0 } 0 0 }
rx-traffic-desc = 1
tx-traffic-desc = 1
aal-type = not-present
tx-sdu-size = 0
rx-sdu-size = 0
aal5-encaps = llc-encapsulation
mcast-type = p2p
call-kind = pvc
```

Dependencies This profile only appears on the interface when a corresponding Simple Network Management Protocol (SNMP) MIB table has been entered. The profile disappears from the interface when that MIB table is removed.

ATM-VPL-CONFIG

Description A profile that enables you to configure an Asynchronous Transfer Mode (ATM) virtual path link (VCL).

Usage Following is a listing of the `atm-vpl-config` profile with its default settings:

```
[in ATM-VPL-CONFIG/{ { { any-shelf any-slot 0 } 0 } 0 } (new)]
id* = { { { any-shelf any-slot 0 } 0 } 0 }
rx-traffic-desc = 1
tx-traffic-desc = 1
mcast-type = p2p
call-kind = pvc
```

Dependencies This profile only appears on the interface when a corresponding Simple Network Management Protocol (SNMP) MIB table has been entered. The profile disappears from the interface when that MIB table is removed.

See Also `id*`

auxiliary-syslog[n]

Description The log profile contains two auxiliary-syslog subprofiles. Each syslog data stream is configured independently.

- All the settings in the log profile, except the syslog-format value, affect the first data stream. The syslog-format setting controls the format of all syslog streams.
- The settings in the auxiliary-syslog[1] subprofile affect the second data stream.
- The settings in the auxiliary-syslog[2] subprofile affect the third data stream.

Usage Following is a listing of the auxiliary-syslog[1] subprofile with its default settings:

```
[in LOG:auxiliary-syslog[1]]
syslog-enabled = no
syslog-level = info
host = 0.0.0.0
port = 514
facility = local0
```

B

bandwidth-config[n]

Description *Deprecated and not used.*

See Also SLOT-STATIC-CONFIG

BANDWIDTH-STATS

Description A read-only profile that provides information about bandwidth allocation for a line interface module (LIM).

Usage Read-only. Following is a listing of the bandwidth-stats profile with sample settings:

```
[in BANDWIDTH-STATS]
max-upstream-bandwidth=622160
active-upstream-bandwidth-on-trunks=155540
standby-upstream-bandwidth-on-trunks=466620
```

BASE

Description A read-only profile that displays the software version, enabled features, network interfaces, and other system information.

Usage Read-only. Following is a listing of a base profile with sample settings:

```
[in BASE]
shelf-number = 1
software-version = 9
software-revision = 3
software-level = ""
manufacturer = dba-ascend-mfg
d-channel-enabled = yes
```

```
aim-enabled = no
switched-enabled = yes
multi-rate-enabled = no
t1-pri-conversion-enabled = no
frame-relay-enabled = yes
maxlink-client-enabled = disabled
data-call-enabled = yes
serial-number = 9487770
hardware-level = 0
countries-enabled = 511
domestic-enabled = yes
phs-2-1-support = no
firewalls-enabled = no
network-management-enabled = no
phs-support = no
routing-protocols-disabled = no
tnt-adsl-restricted = yes
tnt-sdsl-restricted = yes
tnt-idsl-restricted = yes
metallic-test-access-unit = no
ss7asg = disabled
atmp-enabled = disabled
l2tp-enabled = disabled
pptp-enabled = disabled
l2f-enabled = disabled
sdtn-enabled = disabled
vrouter-enabled = disabled
v110-enabled = disabled
network-mgmt-voip-enabled = no
wormarq-enabled = disabled
nm-copper-loop-test-enabled = yes
nm-reporting-enabled = no
nm-vpn-enabled = no
nm-navis-radius-enabled = yes
restrict-redundancy-enabled = no
pnni-enabled = yes
ima-enabled = yes
subtended-connections-enabled = no
aps-enabled = yes
nm-prov = yes
nm-prov-core = no
ras-enabled = no
h248 = no
calea = no
```

base-config

Description A subprofile that enables you to configure bandwidth allocation settings for Asynchronous Transfer Mode (ATM) transmissions

Usage Following is a listing of the `base-config` subprofile with its default settings:

```
[in ATM-IF-CONFIG/{ { shelf-1 slot-10 0 } 4 }:base-config (new)]
max-vpcs = 255
max-vccs = 8192
max-active-vpi-bits = 8
max-active-vci-bits = 13
ilmi-vpi = 0
ilmi-vci = 0
neighbor-ip-address = 0.0.0.0
neighbor-name = ""
subsc-atm-address = 39:84:0f:80:01:bc:72:
```

bir-options

Description A subprofile for specifying bridged IP routing (BIR) settings.

Usage Specify settings in this subprofile to enable the Stinger unit to establish a connection that uses BIR. Following is a listing of the subprofile with its default settings:

```
[in CONNECTION/"":bir-options]
enable = no
proxy-arp = no
```

bootp-relay

Description A subprofile containing options for configuring the BOOTP relay feature. You can enable or disable BOOTP relay and specify `bootp-server` addresses.

Usage Following is a listing of a `bootp-relay` subprofile with its default settings:

```
[in IP-GLOBAL:bootp-relay (new)]
active = no
bootp-servers = [ 0.0.0.0 0.0.0.0 ]
relay-agent-information = { { no 0.0.0.0 } {no 0.0.0.0} }
```

bridging-options

Description A subprofile of either the `connection` or `ethernet` profile that specifies packet bridging settings.

Usage Following is a listing of the `CONNECTION/"":bridging-options` subprofile with its default settings:

```
[in CONNECTION/"":bridging-options]
bridging-group = 0
bridge = no
dial-on-broadcast = no
```

Following is a listing of the `ethernet:briging-options` subprofile with its default settings:

```
[in ETHERNET/{ any-shelf any-slot 0 }:bridging-options]
bridging-group = 0
bridge = no
dial-on-broadcast = no
```

Following is a listing of the `vlan-ethernet:briging-options` subprofile with its default settings:

```
[in VLAN-ETHERNET/{{ shelf-1 first-control-module 2 } 50}}:bridging-options]
bridging-group = 0
bridge = no
dial-on-broadcast = no
```

C

CALL-INFO

Description A read-only profile that provides active call information.

Usage Read-only. Following is a listing of a `call-info` profile with its default settings:

```
[in CALL-INFO/{ 38 }]
mbid* = { 38 }
call-service = nailed-up
called-number-type = 2
nailed-up-group = 801
call-by-call = 0
phone-number = ""
transit-number = ""
billing-number = ""
switched-call-type = 2
ft1-caller = 0
calling-number = { "" unknown unknown unspecified unspecified }
force-56kbps = 0
redirect-number = ""
call-direction = 1
isdn-signaling = False
```

calling-number

Description A read-only subprofile that indicates active call information about the number that is calling.

Usage Read-only. Following is a listing of the `calling-number` subprofile with its default settings:

```
[in CALL-INFO/{ 38 }:calling-number]
calling-number = ""
type-of-number = unknown
numbering-plan = unknown
presentation = unspecified
screening = unspecified
```

CALL-LOGGING

Description A profile that enables you to configure the Stinger unit to communicate with one or more call-log hosts. Call logging is a RADIUS-accounting based feature for logging call information from the Stinger unit. Its main purpose is to duplicate accounting information for sites that wish to keep accounting records separate from call-logging details used to manage resources or troubleshoot call problems.

Once you have configured call logging, the Stinger unit sends Start session, Stop session, and Failure-to-Start session packets to a call-log host. A call-log host is a local host that supports the RADIUS accounting protocol and is configured properly to communicate with the Stinger unit (for example, a RADIUS accounting server or a host running NavisAccess). The call-log information is sent independently of RADIUS accounting records. If both call logging and RADIUS accounting are in use, the information is sent in parallel.

Usage Following is a listing of the `call-logging` profile with its default settings:

```
[in CALL-LOGGING (new)]
call-log-enable = no
call-log-host-1 = 0.0.0.0
call-log-host-2 = 0.0.0.0
call-log-host-3 = 0.0.0.0
call-log-port = 1646
call-log-key = ""
call-log-timeout = 1
call-log-id-base = acct-base-10
call-log-reset-time = 0
call-log-stop-only = yes
call-log-limit-retry = 0
call-log-server-index = host-1
call-log-evaluation-end-julian-time = 0
call-log-radius-compat = 16-bit-vendor-specific
call-log-multi-packet = no
call-log-stream-period = 15
call-log-connection-packets-enable = no
call-log-csm-modem-diag = no
```

CALL-ROUTE

Description A profile that the Stinger unit uses to control the routing of incoming and outgoing calls. Every possible destination within a system has one or more profiles of this type.

Usage Following is a listing of the `call-route` profile with sample settings:

```
[in CALL-ROUTE/{ { { shelf-1 any-slot 0 } 0 } 0 }]
index* = { { { shelf-1 any-slot 0 } 0 } 0 }
trunk-group = 0
phone-number = ""
preferred-source = { { any-shelf any-slot 0 } 0 }
call-route-type = any-call-type
```

CARD-CODE

Description *Not used.* A read-only profile that displays the enabled features on a module.

channel-config[n]

Description A subprofile that enables you to configure each logical link associated with an ISDN digital subscriber line (IDSL).

Usage Following is a listing of a `channel-config` subprofile with its default settings:

```
[in IDSL/{ shelf-1 slot-13 1 }:line-interface:channel-config[1]]
spid = ""
phone-number = ""
trunk-group = 0
channel-usage = switched-channel
route-port = { { 0 0 } { 0 } }
call-route-info = { any-shelf any-slot 0 }
nailed-group = 605
```

channel-state

Description A read-only subprofile that displays the state of each of the two ISDN digital subscriber line (IDSL) channels.

Usage Read-only. Following is a listing of a `channel-state` subprofile with its default settings:

```
[in IDSL-STAT/{ shelf-1 slot-13 1 }:channel-state]
channel-state[1] = disabled
channel-state[2] = disabled
```

circuit-id

Description A subprofile that enables you to configure settings for the circuit identifier suboption of DHCP option 82.

Usage Following is a listing of the `circuit-id` subprofile with its default settings:

```
[in IP-GLOBAL:bootp-relay:relay-agent-information:circuit-id]
enable = no
if-ip = 0.0.0.0
```

CLT-ACCESS

Description *Deprecated and not used.*

See Also `CLT-MS-ACCESS`

CLT-COMMAND

Description A profile that enables you to configure the parameters required to run any of the tests provided by the copper loop test (CLT) module. The `test-operation` parameter defines the test to be performed. Any change to the value of this parameter initiates the test identified by the new value.

Note The `test-operation` parameter should be set after all the other parameters for the desired test are configured.

Usage Following is a listing of the `clt-command` profile with sample settings:

```
[in CLT-COMMAND (new)]
cltm-slot = slot-16
test-time-stamp = 0
test-sequence = 0
test-operation = none
dmm-type = resistance
dmm-lead = tip-ring
background-noise-filter = psd
background-noise-termination = term100
loop-resistance-unit = metric
loop-resistance-temp = 0
impulse-noise-start-thresh = 50
impulse-noise-start-delta = 2
impulse-noise-start-max-count = 1
impulse-noise-start-dead-time = 1
impulse-noise-start-timer = 1
calibration-type = insertion-loss
tone-send-freq = 10
tone-send-level = 0
tone-send-period = 0
tdr-unit = metric
tdr-gauge = 0
tdr-vp = 0
tdr-avg = 1
```

```
tdr-get-type = automatic
tdr-start-distance = 0
tdr-measurement-length = 0
dmmdcd-period = 0
dmmdcd-voltage = 0
dmmdcd-impedance = 10
dmmcap-period = 0
dmmall-type = resistance
dmmall-period = 0
dmmall-input-imp = 0
ctone-type = adsl
ctone-tone = quiet
ttone-lead = tip-ring
ttone-level = 0
ttone-period = 0
btap-start-length = 0
btap-measure-length = 0
fclloc-unit = metric
fclloc-gauge = 0
shortloc-unit = metric
shortloc-gauge = 0
shortloc-type = detect
setresp-mode = on
setresp-mode-period = 0
```

CLT-MS-ACCESS

Description An indexed profile that enables you to configure and activate access to the copper loop test (CLT).

Usage Following is a listing of the `clt-access` profile with its default settings:

```
[in CLT-MS-ACCESS]
cltm-shelf = shelf-2
cltm-slot = slot-3
access-slot = slot-1
access-port = 1
access-loop = 1
access-mode = looking-out
access-terminal = internal-tester-terminal
activate-access = no
access-result = idle
```

CLT-RESULT

Description A profile that indicates the test result of all the tests the tester module has executed. The `test-result-status` parameter is set to `not-valid` at the start of each test and is updated to `valid` or `out-of-range` at the end of each test. All of the `clt-result` profile is cleared at the start of each test, and, depending on the test, the corresponding result parameters are updated at the end.

Usage Following is a listing of a `clt-result` profile with sample settings:

```
[in CLT-RESULT (new)]
cltm-slot = slot-16
test-result-time-stamp = 0
test-result-sequence = 0
test-result-status = not-ready
dmm-result = 0
loop-resistance = 0
loop-resistance-length-1 = 0
loop-resistance-length-2 = 0
loop-resistance-length-3 = 0
coil-detection-coil-count = 0
impulse-noise-read-low-threshold = 0
impulse-noise-read-mid-threshold = 0
impulse-noise-read-high-threshold = 0
rcv-tone-frequency = 0
rcv-tone-level = 0
tdr-manual-sample-count = 0
tdr-automatic-fault-distance = 0
hardware-revision = 0
sofware-revision = 0
psd-frequency-level = [ { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0+
tdr-distance-level = [ { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0 +
dc-delta-resistance-t-r = 0
dc-delta-resistance-t-s = 0
dc-delta-resistance-r-s = 0
dc-delta-voltage-t-s = 0
dc-delta-voltage-r-s = 0
cap-equivalent-t-r = 0
cap-equivalent-t-s = 0
cap-equivalent-r-s = 0
dmm-all-t-r = 0
dmm-all-t-s = 0
dmm-all-r-s = 0
ringer = 0
atu-r = 0
bridge-tap-number = 0
bridge-tap-length = 0
bridge-tap-table = [ { 0 0 0 } { 0 0 0 } { 0 0 0 } { 0 0 0 } { 0 0 0 } { 0 0 +
voice-detection = 0
first-coil-location = 0
short-location = 0
splitter-det-result = 0
```

cmd-log

Description The cmd-log profile contains read-only parameters that provide details about a logged command entry. If this feature is enabled, the system creates a cmd-log profile for every command entered by a user.

Usage Following is a listing of a sample cmd-log profile with an index number of 92:

```
[in CMD-LOG/92]
user = admin
session-id = 2
login-source = console
log-date = { Friday November 2003 7 }
log-time = { 6 58 12 }
information = "dir cmd-log"
index* = 92
shelf = 1
slot = 9
```

CONNECTION

Description A profile that enables you to configure connection-specific information, including user-password authentication settings, compression values, filter specifications, and Asynchronous Transfer Mode (ATM) options.

Usage Following is a listing of the connection profile with its default settings:

```
[in CONNECTION/""]
station* = ""
active = no
encapsulation-protocol = atm-circuit
called-number-type = national
dial-number = ""
clid = ""
auto-profiles = yes
ip-options = { yes yes 0.0.0.0/0 0.0.0.0/0 1 60 120 no 0 0.0.0.0 +
bridging-options = { 0 no no }
session-options = { "" "" no 120 no-idle 120 "" 0 disabled autobaud+
telco-options = { ans-and-orig no ft1 1 no no 56k-clear 0 "" "" no +
ppp-options = { no-ppp-auth none "" none "" "" "" "" stac 1524 no 6+
mp-options = { 1 1 2 }
mpp-options = { "" quadratic transmit 1 1 15 5 10 70 }
fr-options = { "" 16 "" transparent-link no "" 16 "" }
tcp-clear-options = { "" 0 "" 0 "" 0 "" 0 no "" 256 20 }
usrRad-options = { global 0.0.0.0 1646 "" 1 acct-base-10 }
calledNumber = ""
shared-prof = no
max-shared-users = 0
tunnel-options = { disabled atmp-protocol 0 rip-off "" "" 5150 "" "+
vrouter = ""
cross-connect-index = 0
atm-options = { aal5-llc 0 35 1 p2p pvc no 00:00:00:00:00:00:00:00:+
atm-connect-options = { aal5-llc 0 35 1 p2p pvc no 00:00:00:00:00:0+
port-redirect-options = { none 0 0.0.0.0 }
```

```
pppoe-options = { no no }
atm-qos-options = { default default 0-level }
bir-options = { no no }
atm-aal-options = { no aal-0 1 1 }
conn-user = default
```

Dependencies The following `connection` profile entries do not apply to Stinger units:

```
called-number-type = national
dial-number = ""
clid = ""
expect-callback = no
mp-options = { 1 1 2 }
mpp-options = { "" quadratic transmit 1 1 15 5 10 70 }
tcp-clear-options = { "" 0 "" 0 "" 0 "" 0 no "" 256 20 }
calledNumber = ""
```

contact-closure

Description The `contact-closure` subprofile indicates the contact closure state of the corresponding remote shelf. This profile is read-only.

Usage Following are the read-only fields in a profile for shelf 2:

```
[in REMOTE-SHELF-STAT/shelf-2:contact-closure]
contact-closure[1] = no
contact-closure[2] = no
contact-closure[3] = no
contact-closure[4] = no
contact-closure[5] = no
contact-closure[6] = no
contact-closure[7] = no
```

Note Only the first two contact closure values are meaningful for Stinger MRT units.

context[n]

Description A subprofile that enables you to configure options for an individual controller. The index for each subprofile is a controller number.

Usage Following is a listing of the `context[`*n*`]` subprofile with its default setting:

```
[in REDUNDANCY:context[1]]
must-agree=no
```

context-stats[n]

Description A subprofile that contains the redundancy statistics for a particular control module. There is one `context-stats` subprofile for each control module.

Usage Following are the read-only parameters in the `context-stats` subprofile:

```
[in REDUNDANCY-STATS:context-stats[1]]
state = monitoring
function = secondary
select-reason = defer-to-running-primary
prior-function = secondary
last-reboot = crash
local = { 9487770 }
pair = { 10486893 }
chassis-serial-number = 0
initialization-time = 382400025
post-start = 382400029
post-end = 382400031
selection-start = 382400029
selection-end = 382400031
load-start = 382400031
load-end = 382400074
inauguration-time = 382400074
last-sent = 382400074
last-received = 382400074
last-profile-sync = 0
last-code-sync = 0
last-log-recv = 0
update-time = 382400074
```

continuity-config

Description A subprofile that you use to configure continuity check parameters.

Usage Set values in this profile to specify the continuity check parameters. Following is a listing of `continuity-config` subprofile with its default settings:

```
[in ATM-OAM/{ { any-shelf any-slot 0 } 0 0 }:continuity-config (new)]
enabled = no
continuity-level = segment
```

controller-static-config

Description *Deprecated and not used.*

See Also `switch-config`

D

date

Description A subprofile that enables you to configure the day of the week and the current system date.

Usage Following is a listing of the `date` subprofile with sample settings:

```
[in TIMEDATE:date]
weekday=Friday
month=October
day=18
year=1996
```

Note You can also use the `date` command to set the day of the week and the system date.

DEBUG

Description A profile that enables you to configure Stinger debug options.

Usage Following is a listing of the `debug` profile with its default settings:

```
[in DEBUG/{ any-shelf any-slot 0 }]
physical-Address* = { any-shelf any-slot 0 }
active = yes
enable-core-dump = no
core-dump-server = ""
enable-gdb = no
gdb-host = ""
generic-field = 2147483647
min-warning-core-dump = 0
max-warning-core-dump = 0
core-dump-rip-update = update-high-freq
```

device-address

Description A subprofile that enables you to configure the address for the device carrying the call.

Usage Following is a listing for the `device-address` subprofile with its default settings:

```
[in CALL-ROUTE/{ { { shelf-1 any-slot 0 } 0 } 0 }:index:device-address]
physical-address = { shelf-1 any-slot 0 }
logical-item = 0
```

See Also `index`, `preferred-source`

DEVICE-STATE

Description A read-only profile that indicates the current state of a device. The Stinger unit does not store the `device-state` profile in nonvolatile RAM (NVRAM), so the profile's settings do not persist across system resets or power cycles. The `device-state` parameter setting might differ from the `reqd-state` parameter setting during state changes, such as when a device is being disconnected. State changes are complete when the `device-state` and the `reqd-state` values match.

Usage Read-only. Following is a listing of the `device-state` profile with sample settings:

```
[in DEVICE-STATE/{ { shelf-1 slot-13 19 } 0 }]
device-address* = { { shelf-1 slot-13 19 } 0 }
device-state = down-dev-state
up-status = idle-up-status
reqd-state = down-reqd-state
route-id = { 0 }
used-count = 0
bad-count = 0
last-32 = 0
```

Dependencies A Simple Network Management Protocol (SNMP) manager can read the `device-state` profile.

dialout-configuration

Description *Not used.*

Location `TERMINAL-SERVER`

dialout-options

Description *Not supported.* A `tunnel-server` subprofile that specifies dial-out options for a specific Layer 2 Tunneling Protocol (L2TP) network server (LNS). The parameters in this subprofile do not apply to Stinger units operating as L2TP access concentrators (LACs).

Location `TUNNEL-SERVER`

dlci-ident

Description A read-only subprofile that indicates data link connection identifier (DLCI) information.

Usage Read only. Following is a listing of a `dlci-ident` subprofile with sample settings:

```
[in FRDLCI-STAT/{ 16 3 fr13_20_1 transparent-link }:dlci-ident]
dlci = 16
dlci-route-id = 3
fr-profile = fr13_20_1
fr-link-type = transparent-link
```

dlci-members[*n*]

Description A read-only subprofile that indicates the data link connection identifier (DLCI) information for each of the DLCI members.

Usage Read-only. Following is a sample listing of the `dlci-members` subprofile:

```
[in FRPVC-STAT/801_0_120:dlci-members[1]]
dlci = 16
dlci-route-id = 3
fr-profile = fr13_20_1
fr-link-type = transparent-link
```

dns-local-table

Description A subprofile that enables you to configure a Domain Name System (DNS) table of up to eight hostnames and their IP addresses. The system consults the table in RAM for address resolution only if requests to the DNS server fail. The local table acts as a safeguard to ensure that the system can resolve certain DNS names, even if all DNS servers are inaccessible.

The local DNS table is propagated to RAM from the settings in this subprofile. At startup, the system copies values in the profile to the table in RAM. If you subsequently modify the `dns-local-table` subprofile, the changes are propagated to the table in RAM when the profile is written.

Usage Following is a listing of the `dns-local-table` subprofile with its default settings:

```
[in IP-GLOBAL:dns-local-table]
enabled = no
auto-update = no
table-config = [ { "" 0.0.0.0 } { "" 0.0.0.0 } { "" 0.0.0.0 } { "" 0.+
```

See Also `table-config`

DS1-ATM

Description A profile that enables you to configure hardware-specific parameters that are common to the inverse multiplexing over ATM (IMA) chip. For example, because 24-port IMA line interface modules (LIMs) contain three chips, three profiles are created. However, because eight-port IMA LIMs contain a single chip, only one profile is created.

Usage Following is a listing of `ds1-atm` profile with its default settings:

```
[in DS1-ATM/{ any-shelf any-slot 0 } (new)]
name = 0:0:0
physical-address* = { any-shelf any-slot 0 }
enabled = no
spare-physical-address = { any-shelf any-slot 0 }
sparing-mode = inactive
ignore-lineup = system-defined
line-config = { esf b8zs 4294967246 no-loopback not-eligible high-priority +
```

DS1-ATM-STAT

Description A read-only profile that indicates the statistics for DS1-ATM modules.

Usage Read-only. Following is a sample listing of a `ds1-atm-stat` profile:

```
[in DS1-ATM-STAT/{ shelf-1 slot-2 1 }]
physical-address* = { shelf-1 slot-2 1 }
line-mode = uni
line-state = disabled
loss-of-carrier = True
loss-of-sync = False
ais-receive = True
yellow-receive = False
ber-receive = False
carrier-established = False
cell-delineation = False
network-loopback = False
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-15-vci-32-127
vp-switching-vpi = 15
ima-link-status = { not-in-group not-in-group not-in-group not-in-group +
ima-link-statistic = { 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 }
utopia-address = 4294967295
send-code-status = disabled
pattern-test-status = none
```

DS3-ATM

Description A profile that enables you to configure a DS3-ATM module.

Usage Following is a listing of the `ds3-atm` profile with its default settings:

```
[in DS3-ATM/{ shelf-1 slot-1 0 }]
name=""
physical-address*={ shelf-1 slot-1 0 }
enabled=no
spare-physical-address={ any-shelf any-slot 0 }
sparing-mode=inactive
ignore-lineup = system-defined
line-config={ 9 0 static { shelf-1 slot-1 0 } no-loopback no +
```

DS3-ATM-STAT

Description A read-only profile that indicates the status of a DS3-ATM trunk module.

Usage Read-only. Following is a sample listing of the `ds3-atm-stat` profile:

```
[in DS3-ATM-STAT/{ shelf-1 trunk-module-2 1 }]
physical-address* = { shelf-1 trunk-module-2 1 }
line-state = active
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = manual
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-255-vci-32-4095
vc-switching-vpi = ""
vcc-vpi = [ 0 0 0 0 0 0 0 ]
f-bit-error-count = 227
p-bit-error-count = 9
cp-bit-error-count = 5
feb-error-count = 24
bpv-error-count = 5303
loss-of-signal = False
loss-of-frame = False
yellow-receive = False
ais-receive = False
```

DSL-THRESHOLD

Description A profile that enables you to configure threshold settings for digital subscriber line (DSL) services.

Usage Following is a listing of the `dsl-threshold` profile with its default settings:

```
[in DSL-THRESHOLD/default]
name* = default
enabled = no
atuc-15min-lofs = 0
atuc-15min-loss = 0
atuc-15min-lols = 0
atuc-15min-lprs = 0
atuc-15min-ess = 0
atuc-fast-rate-up = 0
atuc-interleave-rate-up = 0
atuc-fast-rate-down = 0
atuc-interleave-rate-down = 0
atuc-init-failure-trap = disable
```

E

E3-ATM

Description A profile that enables you to configure the parameters for an E3 trunk module.

Usage Following is a listing of the `e3-atm` profile with its default values:

```
[in E3-ATM/{ any-shelf any-slot 0 } (new)]
name = ""
physical-address* = { any-shelf any-slot 0 }
enabled = no
ignore-lineup = system-defined
line-config = { 9 1 no-loopback no g832-adm vpi-0-255-vci-32-8191 [ 0 0 0 0+
spare-physical-address = { any-shelf any-slot 0 }
sparing-mode = inactive
```

E3-ATM-STAT

Description A read-only profile that indicates the status of a E3-ATM trunk module.

Usage Read-only. Following is a sample listing of the `e3-atm-stat` profile:

```
[in E3-ATM-STAT/{ shelf-1 trunk-module-1 1 }]
physical-address* = { shelf-1 trunk-module-1 1 }
line-state = active
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = manual
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-255-vci-32-8191
vc-switching-vpi = ""
vcc-vpi = [ 0 0 0 0 0 0 0 ]
f-bit-error-count = 0
p-bit-error-count = 0
cp-bit-error-count = 0
feb-error-count = 0
bpv-error-count = 0
loss-of-signal = False
loss-of-frame = False
yellow-receive = False
ais-receive = False
```

ERROR

Description A read-only profile that provides information about any errors that occur when the Stinger unit is running.

Usage Read-only. Following is a sample listing of the `error` profile:

```
[in ERROR/562]
is-post = no
type = 99
abstime = 380755993
slot = 9
version = 9.0-169a0e0
user-profile = admin
stack-trace = [ 0 0 0 0 0 0 ]
loadname = stngrcm
index* = 562
shelf = 1
login-source = 192.168.120.10
```

ETHER-INFO

Description A read-only profile that indicates the Media Access Control (MAC) address and link state of an Ethernet interface. The `ether-info` profile is created when the Ethernet module enters an active state and deleted when the slot is deactivated. The contents of the profile are not written to nonvolatile RAM (NVRAM).

Usage Read-only. Following is a listing of the `ether-info` profile with sample settings:

```
[in ETHER-INFO/{ shelf-1 slot-2 1 }]
interface-address*={ shelf-1 slot-2 1 }
mac-address=00:c0:7b:68:ef:98
link-state=up
media-speed-mbit = 100
```

ETHERNET

Description A profile that enables you to configure the physical characteristics of an Ethernet interface. With the optional line element module (LEM) of a router module, two additional Ethernet interfaces are supported by the Stinger unit.

Usage Following is a listing of the `ethernet` profile with its default settings:

```
[in ETHERNET/{ any-shelf any-slot 0 }]
interface-address* = { any-shelf any-slot 0 }
link-state-enabled = no
enabled = yes
ether-if-type = utp
bridging-enabled = no
filter-name = ""
duplex-mode = full-duplex
pppoe-options = { no no }
bridging-options = { 0 no }
media-speed-mbit = 100mb
auto-negotiate = no
```

extension-config

Description A subprofile containing supplemental parameters for configuring the Asynchronous Transfer Mode (ATM) cell layer.

Usage Following is a listing of the `extension-config` subprofile with its default settings:

```
[in ATM-IF-CONFIG/{ { any-shelf any-slot 0 } 0 }:extension-config (new)]
config-type = atmf-uni-pvc-only
config-side = other
ilmi-admin-status = no
ilmi-connectivity = no
conn-estab-interval = 1
loss-detect-interval = 5
poll-inact-factor = 4
device-type = private
max-switched-vpc-vpi = 255
max-switched-vcc-vpi = 255
min-switched-vcc-vci = 32
sig-vcc-rx-qos-name = default-ctl
sig-vcc-tx-qos-name = default-ctl
pvc-failure-trap-enabled = no
pvc-failure-intvl = 30
```

EXTERNAL-AUTH

Description A profile that enables you to configure options for an external RADIUS server.

Usage Following is a listing of the `external-auth` profile with sample settings:

```
[in EXTERNAL-AUTH (new)]
auth-type = None
acct-type = none
rad-serv-enable = no
rad-auth-client = { 0.0.0.0 0.0.0.0 0.0.0.0 0 0 "" no 1 no no no 0 yes yes 0+
rad-acct-client = { 0.0.0.0 0.0.0.0 0.0.0.0 0 0 "" 1 0 acct-base-10 all-ses+
rad-auth-server = { 0 no rad-serv-attr-any [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0 0.+
tac-auth-client = { 0.0.0.0 0.0.0.0 0.0.0.0 0 0 "" 0 }
tacplus-auth-client = { 0.0.0.0 0.0.0.0 0.0.0.0 0 0 "" 0 0 }
tacplus-acct-client = { 0.0.0.0 0.0.0.0 0.0.0.0 0 0 "" }
password-profile = { "" "" ****** ****** ****** ****** ****** ****** }
local-profiles-first = lpf-yes
noattr6-use-termsrv = yes
cli-user-auth = local-then-external
```

F

fast-path-config

Description A subprofile that enables you to configure minimum, maximum, and planned upstream and downstream bit rates for a rate-adaptive connection on a fast channel.

Usage Following is a listing of the `fast-path-config` subprofile with sample settings:

```
[in AL-DMT/{ shelf-1 slot-4 1 }:fast-path-config]
min-bitrate-up=10
min-bitrate-down=50
max-bitrate-up=1000
max-bitrate-down=8000
planned-bitrate-up=200
planned-bitrate-down=200
```

FILTER

Description A profile that specifies input and output filter specifications.

Usage Values set in this profile can be applied to any number of `connection` or RADIUS profiles. Following is a listing of the `filter` profile with its default settings:

```
[in FILTER/""]
filter-name* = ""
input-filters = [ { no no generic-filter { 0 0 no no 00:00:00:00:00:0+
output-filters = [ { no no generic-filter { 0 0 no no 00:00:00:00:00:+
```

filter-list[n]

Description A subprofile containing a multicast group address. Up to 256 `filter-list` subprofiles can be specified.

Usage Following is a listing of a `filter-list` subprofile with its default values:

```
[in MCAST-SERVICE/"":filter-list[1] (new)]
active = no
mcast-ip-address = 0.0.0.0
```

FRAME-RELAY

Description A profile that enables you to configure frame relay connections.

Usage Following is a listing of the `frame-relay` profile with its default settings:

```
[in FRAME-RELAY/""]
fr-name* = ""
active = no
nailed-up-group = 1
nailed-mode = ft1
called-number-type = 2
switched-call-type = 56k-clear
phone-number = ""
billing-number = ""
transit-number = ""
call-by-call-id = 0
link-mgmt = none
link-type = dte
n391-val = 6
n392-val = 3
n393-val = 4
t391-val = 10
t392-val = 15
MRU = 1532
dceN392-val = 3
dceN393-val = 4
link-mgmt-dlci = dlci0
mfr-bundle-name = ""
frf5-options = { no 0 35 16 }
```

Dependencies The `frf5-options` subprofile is not supported for the IDSL line interface module (LIM).

frame-relay-options

Description A subprofile that specifies the options to match the `frame-relay` profile when configuring an ISDN digital subscriber line (IDSL) to frame relay connection.

Usage Following is an example of a `frame-relay-options` subprofile with its default settings:

```
[in CONNECTION/""]frame-relay-profile = ""
dlci = 16
circuit-name = ""
fr-link-type = transparent-link
fr-direct-enabled = no
fr-direct-profile = ""
fr-direct-dlci = 16
mfr-bundle-name = ""
fr-enabled = yes
```

fr-answer

Description A subprofile that enables the Stinger unit to answer incoming connections that use frame relay encapsulation.

Usage Following is a listing of an `fr-answer` subprofile with its default setting:

```
[in ANSWER-DEFAULTS:fr-answer (new)]
enabled = yes
```

FRDLCI-STAT

Description This read-only profile that indicates the state of the frame relay data link connection identifier (DLCI) for the permanent virtual channel (PVC).

Usage Read-only. Following is a listing of the `frdlci-stat` profile with sample settings:

```
[in FRDLCI-STAT/{ 16 3 fr13_20_1 transparent-link }]
dlci-ident* = { 16 3 fr13_20_1 transparent-link }
circuit-name = 801_0_120
current-state = pvc-data-transfer
tag = 4225504
shelf-number = shelf-1
slot-number = slot-13
```

fr-options

Description A subprofile that specifies the options to match the `frame-relay` profile when configuring an ISDN digital subscriber line (IDSL) to frame relay connection.

Usage Following is a listing of the `fr-options` subprofile with its default settings:

```
[in CONNECTION/"":fr-options (new)]
frame-relay-profile = ""
dlci = 16
circuit-name = ""
fr-link-type = transparent-link
fr-direct-enabled = no
fr-direct-profile = ""
fr-direct-dlci = 16
mfr-bundle-name = ""
fr-enabled = yes
```

Dependencies Frame relay calls must be enabled in the `answer-defaults` profile.

FRPVC-STAT

Description This read-only profile that displays the state of the frame relay permanent virtual connection (PVC).

Usage Read-only. Following is a listing of the `frpvc-stat` profile with sample settings:

```
[in FRPVC-STAT/801_0_120]
circuit-name* = 801_0_120
current-state = pvc-data-transfer
transparentPvc = yes
trunkLinkIndex = 0
activeLinkCount = 3
dlci-members = [ { 16 3 fr13_20_1 transparent-link } { 17 4 f _20 transpare+
```

G

gen-filter

Description A subprofile for defining a generic packet filter.

Usage Set values in this subprofile to configure one of up to 12 input or output generic packet filters. Following are listings of `gen-filter` subprofiles:

- For input filters:

```
[in FILTER/"":input-filters[1]:gen-filter]
offset = 0
len = 0
more = no
comp-neq = no
mask = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
value = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

- For output filters:

```
[in FILTER/"":output-filters[1]:gen-filter]
offset = 0
len = 0
more = no
comp-neq = no
mask = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
value = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
```

H

HDSL2

Description A profile that enables you to configure HDSL2 ports.

Usage Following is a listing of the `hdsl2` profile with its default settings:

```
[in HDSL2/{ any-shelf any-slot 0 } (new)]
name = ""
physical-address* = { any-shelf any-slot 0 }
enabled = no
sparing-mode = inactive
ignore-lineup = system-defined
line-config = { 0 1 15 static { any-shelf any-slot 0 } coe no not-eligible +
thresh-profiles = { DEFVAL "" "" [ { "" "" } { "" "" } { "" "" } { "" "" } +
```

HDSL2-STAT

Description A read-only profile that indicates the status of each HDSL2 interface. The Stinger unit creates an `hdsl2-stat` profile for each HDSL2 interface in the system.

Usage Following is a listing of the `hdsl2` profile with sample settings for an active line:

```
[in HDSL2-STAT/{ shelf-1 slot-2 10 }]
physical-address* = { shelf-1 slot-2 10 }
line-state = active
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-15-vci-32-127
vp-switching-vpi = 15
physical-status = { 0 cpe port-up 1544000 A100 1 }
physical-statistic = { { 0 0 3 } yes 36 3 passed 10 0 in-sync 0 0 0 0 0 0 0 +
```

HIGH-SPEED-SLOT-STATIC-CONFIG

Description A profile that enables you to configure auxiliary Asynchronous Transfer Mode (ATM) parameters for each trunk or trunk aggregation module (TRAM).

Usage Following is a listing of the `high-speed-slot-static-config` profile with its default settings:

```
[in HIGH-SPEED-SLOT-STATIC-CONFIG/{ shelf-1 trunk-module-1 1 }]
name = ""
physical-address* = { shelf-1 trunk-module-1 1 }
atm-parameters = { low-priority }
trunk-cac-config = { yes "" 148598 10 }
```

Dependencies The `trunk-cac-config` profile was previously located in the `atm-config` profile. Its use in that location has been deprecated.

If a user has already set this profile in the `atm-config` profile under a previous TAOS release, the parameters are copied into the corresponding `high-speed-slot-static-config` profile. The parameters are now invisible in the `atm-config` profile unless `allow-debug` is set to `yes`.

host-port

Description The `host-port` subprofile specifies the physical address of the remote shelf. This profile is read-only.

Usage Following are the read-only fields in a profile for shelf 2:

```
[in REMOTE-SHELF-STAT/shelf-2:host-port]
physical-address = { any-shelf any-slot 0 }
logical-item = 0
```

I

id*

Description A subprofile that identifies the virtual channel link (VCL).

Usage Following is a listing of the `id` subprofile with its default settings:

```
[in ATM-VCL-CONFIG/{ { { any-shelf any-slot 0 } 0 } 0 0 }:id (new)]
address = { { any-shelf any-slot 0 } 0 }
vpi = 0
vci = 0
```

IDSL

Description A profile that enables you to configure ISDN digital subscriber line (IDSL) ports.

Usage Following is an example of the `idsl` profile with its default settings:

```
[in IDSL/{ shelf-1 slot-13 5 }]
name = 1:13:5
line-interface = { no [ {switched-channel 605 } { switched-channel 605 } ] +
physical-address* = { shelf-1 slot-13 5 }
sparing-mode = inactive
```

IDSL-STAT

Description A read-only profile that indicates the state of the ISDN digital subscriber line (IDSL) channels.

Usage Read-only. Following is a sample listing of an `idsl-stat` profile:

```
[in IDSL-STAT/{ shelf-1 slot-14 1 }]
physical-address* = { shelf-1 slot-14 1 }
line-state = point-to-point
channel-state = [ nailed-up nailed-up ]
error-count = [ 0 0 ]
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
physical-status = { 444 }
physical-statistic = { { 0 0 6 } 107 [ 0 0 0 ] }
```

IF-SPARING-CONFIG

Description A profile that enables you to configure spare line interface modules (LIMs) using automatic sparing.

Usage Following is a listing of the `if-sparing-config` profile with its default settings:

```
[in IF-SPARING-CONFIG (new)]
if-spared-slot = [ any-slot any-slot any-slot any-slot any-slot any-sl+
if-spare-slot = [ any-slot any-slot any-slot any-slot any-slot any-slo+
if-auto-spare-info = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 0 +
lim-auto-spare-info = [ any-slot any-slot any-slot any-slot ot any-+
```

if-sparing-config

Description A read-only subprofile that contains the slot number of the redundant line interface module (LIM) for each LIM port.

Usage Following is a listing of an `if-sparing-config` subprofile:

```
[in LIM-SPARING-CONFIG/{ any-shelf any-slot 0 }:if-sparing-config (new)]
if-sparing-config[n] = any-slot
```

igmp-options

Description A subprofile that enables you to configure the timers defined in RFC 2236, *Internet Group Management Protocol Version 2,* on multicast client interfaces.

Usage Following is a listing of the `igmp-options` subprofile with its default settings:

```
[in CONNECTION/"":ip-options:igmp-options]
robust-count = 2
query-interval = 125
query-response-interval = 100
last-member-query-interval = 10
last-member-query-count = 2
```

IMAGROUP

Description A profile that enables you to configure an inverse multiplexing over ATM (IMA) port. When you enter the command `new imagroup`, a new profile is created to establish all group-related IMA parameters.

Usage Following is a sample listing of an `imagroup` profile:

```
[in IMAGROUP/"" (new)]
name* = ""
active = no
nailed-group = 0
group-symmetry-mode = symmetric-operation
version = v1-1
do-version-fallback = no
ignore-lineup = system-defined
lasr = yes
ne-tx-clk-mode = ctc
tx-min-num-links = 1
rx-min-num-links = 1
ima-id = 0
frame-length = 128
diff-delay-max = 25
check-far-end-ima-id = no
expected-far-end-ima-id = 0
far-end-check-frame-length = no
expected-far-end-frame-length = 128
atm-if-delay = 0
tpp-test-link = 0
tpp-test-pattern = -1
tpp-state = disabled
vp-switching-vpi = 15
```

IMA-GROUP-STAT

Description A profile that indicates the performance of an inverse multiplexing over ATM (IMA) group. The profile is automatically created by the system once the `imagroup` profile is properly configured and associated with a `ds1-atm` profile.

Usage Following is a sample listing of the `ima-group-stat` profile:

```
[in IMA-GROUP-STAT/ima3_1]
name* = ima3_1
physical-address = { shelf-1 slot-3 25 }
near-end-ima-group-state = operational
failure-status = no-failure
far-end-txclock-mode = ctc
tx-timing-ref-link = 0
rx-timing-ref-link = 0
rx-ima-id = 0
rx-frame-length = 128
least-delay-link = 0
diff-delay-max-obs = 0
running-secs = 1435
tx-avail-cellrate = 2147488176
rx-avail-cellrate = 4493
tx-num-config-links = 2
rx-num-config-links = 2
tx-num-active-links = 1
rx-num-active-links = 1
tx-oam-label-value = 3
rx-oam-label-value = 3
last-change-time = 52
tpp-test-link = 1
tpp-test-pattern = 100
tpp-test-status = link-fail
valid-intervals = 0
invalid-intervals = 96
vpi-vci-range = vpi-0-15-vci-32-127
vp-switching-vpi = 0
ima-group-statistic = { 40 0 6571424 }
nailed-group = 310
```

ima-group-statistic

Description A read-only subprofile that indicates the status of the inverse multiplexing over ATM (IMA) group.

Usage Read-only. Following is a sample listing of the `ima-group-statistic` subprofile:

```
[in IMA-GROUP-STAT:ima-group-statistic]
unavailable-secs = 56
near-end-num-failures = 3
far-end-num-failures = 6
```

IMAHW-CONFIG

Description A profile that enables you to configure hardware-specific parameters common to the inverse multiplexing over ATM (IMA) chip. For example, because the 24-port IMA line interface modules (LIMs) contain three chips, three profiles are created. However, the 8-port IMA LIMs contain a single chip so only one profile is created for it.

Usage Following is a listing of the `imahw-config` profile with sample settings:

```
[in IMAHW-CONFIG/{ any-shelf any-slot 0 } (new)]
name = ""
physical-address* = { any-shelf any-slot 0 }
alpha-ima-value = 2
beta-ima-value = 2
gamma-ima-value = 1
alpha-cell-delin-value = 7
delta-cell-delin-value = 6
```

ima-link-statistic

Description A read-only subprofile that indicates statistics for the inverse multiplexing over ATM (IMA) link.

Usage Read-only. Following is a sample listing of an `imp-link-statistic` subprofile:

```
[in DS1-ATM-STAT/{ shelf-1 slot-2 20 }:ima-link-statistic]
ima-violations-counter = 0
oif-anomalies-counter = 0
near-end-sev-errored-secs-counter = 0
far-end-sev-errored-secs-counter = 0
near-end-unavail-secs-counter = 0
far-end-unavail-secs-counter = 0
near-end-tx-unusable-secs-counter = 0
near-end-rx-unusable-secs-counter = 0
far-end-tx-unusable-secs-counter = 0
far-end-rx-unusable-secs-counter = 0
near-end-tx-num-failures-counter = 0
near-end-rx-num-failures-counter = 0
far-end-tx-num-failures-counter = 0
far-end-rx-num-failures-counter = 0
tx-stuffs-counter = 0
rx-stuffs-counter = 0
elapsed-seconds = 0
```

ima-link-status

Description A read-only subprofile that indicates the inverse multiplexing over ATM (IMA) link.

Usage Read-only. Following is a sample listing of an `ima-link-status` subprofile:

```
[in DS1-ATM-STAT/{ shelf-1 slot-2 20 }:ima-link-status]
near-end-tx-link-state = not-in-group
near-end-rx-link-state = not-in-group
far-end-tx-link-state = not-in-group
far-end-rx-link-state = not-in-group
near-end-rx-failure-status = no-failure
far-end-rx-failure-status = no-failure
tx-lid = 0
rx-lid = 0
relative-delay = 0
rx-test-pattern = 0
rx-testproc-status = disabled
valid-intervals = 96
invalid-intervals = 0
```

Location `DS1-ATM-STAT`

ima-option-config

Description A subprofile that enables you to configure an inverse multiplexing over ATM (IMA) interface.

Usage Following is a listing of an `ima-option-config` subprofile with sample settings:

```
[in DS1-ATM/{ any-shelf any-slot 0 }:line-config:ima-option-config (new)]
txlink-config = { 0 3 fast auto 10 0 }
rxlink-config = { 3 fast 10 100 auto 10 2500 10000 10 }
```

Location `DS1-ATM/{ any-shelf any-slot 0 }:line-config`

ima-rt

Description A read-only subprofile that indicates status of the inverse multiplexing over ATM (IMA) route.

Usage Following is a sample listing of the `ima-rt` subprofile:

```
[in IMA-GROUP-STAT:ima-rt]
name* = ima-rt
physical-address = { shelf-1 slot-2 25 }
near-end-ima-group-state = operational
far-end-ima-group-state = operational
failure-status = no-failure
far-end-txclock-mode = ctc
tx-timing-ref-link = 1
rx-timing-ref-link = 1
rx-ima-id = 0
rx-frame-length = 128
least-delay-link = 0
diff-delay-max-obs = 0
running-secs = 53461
tx-avail-cellrate = 7244
rx-avail-cellrate = 7188
tx-num-config-links = 2
rx-num-config-links = 2
tx-num-active-links = 2
rx-num-active-links = 2
tx-oam-label-value = 3
rx-oam-label-value = 3
last-change-time = 1315
tpp-test-link = 0
tpp-test-pattern = 255
tpp-test-status = disabled
valid-intervals = 0
invalid-intervals = 96
vpi-vci-range = vpi-0-15-vci-32-127
vp-switching-vpi = 15
ima-group-statistic = { 56 3 6 }
```

Location `IMA-GROUP-STAT`

immediate-mode-options

Description *Not used.*

Location `TERMINAL-SERVER`

index *n*

Description Index of the called device.

Usage Following is a listing of the `index` subprofile with its default settings:

```
[in CALL-ROUTE/{ { { shelf-1 any-slot 0 } 0 } 0 }:index]
device-address = { { shelf-1 any-slot 0 } 0 }
entry-number = 0
```

input-filters[*n*]

Description A subprofile that defines an input-filter specification. The filter specifications are applied in order (1 through 12) to the inbound packet stream. The order in which the input filters are defined is significant.

Usage To define an input filter specification, list the parameters of the subprofile as follows, and set the appropriate values:

```
[in FILTER/"":input-filters[1]]
valid-entry = no
forward = no
Type = generic-filter
gen-filter = { 0 0 no no 00:00:00:00:00:00:00:00:00:00:00:00 00:00:00+
ip-filter = { 0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 none 0 none 0 no }
route-filter = { 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0 none }
tos-filter = { 0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 none 0 none 0 000 no+
```

integrity-config[n]

Description A subprofile for internal use only.

Location `SYSTEM-INTEGRITY`

interleave-path-config

Description A subprofile that enables you to configure minimum, maximum, and planned upstream and downstream bit rates for a rate-adaptive connection on an interleaved channel.

Usage Following is a listing of the `interleave-path-config` subprofile with its default settings:

```
[in AL-DMT/{ shelf-1 slot-4 1 }:interleave-path-config]
min-bitrate-up=0
min-bitrate-down=0
max-bitrate-up=0
max-bitrate-down=0
planned-bitrate-up=0
planned-bitrate-down=0
max-delay-up=16
max-delay-down=16
```

interval-performance-monitoring[n]

Description A read-only subprofile that indicates synchronous optical network (SONET) performance values for the preceding four 15-minute intervals, providing performance data for the past hour.

Usage Read-only. Following is a listing of the `interval-performance-monitoring` subprofile:

```
[in OC3-ATM-STAT/{ shelf-1 trunk-module-2 1 }:interval-performance-
monitoring[1]]
sonet-section-errored-seconds=0
sonet-section-severely-errored-seconds=0
sonet-section-severely-errored-framing-seconds=0
sonet-section-coding-violations=0
sonet-line-errored-seconds=0
sonet-line-severely-errored-seconds=0
sonet-line-coding-violations=0
sonet-line-unavailable-seconds=0
sonet-far-end-line-errored-seconds=0
sonet-far-end-line-severely-errored-seconds=0
sonet-far-end-line-coding-violations=0
sonet-far-end-line-unavailable-seconds=0
sonet-path-errored-seconds=0
sonet-path-severely-errored-seconds=0
sonet-path-coding-violations=0
sonet-path-unavailable-seconds=0
sonet-far-end-path-errored-seconds=0
sonet-far-end-path-severely-errored-seconds=0
sonet-far-end-path-coding-violations=0
sonet-far-end-path-unavailable-seconds=0
```

Dependencies The information in the `performance-monitoring` subprofile updates the values in the `interval-performance-monitoring` subprofile.

ip-answer

Description A subprofile that enables you to configure the general settings to be used as defaults for incoming IP calls that do not specify a different value in the caller's profile

Usage Following is a listing of the `ip-answer` subprofile with its default settings:

```
[in ANSWER-DEFAULTS:ip-answer]
enabled = yes
vj-header-prediction = yes
assign-address = yes
routing-metric = 1
private-route-profile-required = no
```

ip-filter

Description An `input-filter` or `output-filter` subprofile for defining an IP packet filter.

Usage Set values in this subprofile to configure one of up to 12 input or output IP packet filters. Following is a listing of an `ip-filter` subprofile with its default settings:

- For input filters:

```
[in FILTER/"":input-filters[1]:ip-filter]
protocol = 0
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
dest-address-mask = 0.0.0.0
dest-address = 0.0.0.0
Src-Port-Cmp = none
source-port = 0
Dst-Port-Cmp = none
dest-port = 0
tcp-estab = no
```

- For output filters:

```
[in FILTER/"":output-filters[1]:ip-filter]
protocol = 0
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
dest-address-mask = 0.0.0.0
dest-address = 0.0.0.0
Src-Port-Cmp = none
source-port = 0
Dst-Port-Cmp = none
dest-port = 0
tcp-estab = no
```

IP-GLOBAL

Description A profile that enables you to configure the IP router systemwide.

Usage Following is a listing of the `ip-global` profile with its default settings:

```
[in IP-GLOBAL]
domain-name = ""
dns-primary-server = 0.0.0.0
dns-secondary-server = 0.0.0.0
dns-server-query-type = udp
system-ip-addr = 192.168.120.202
soft-ip-interface-addr = 0.0.0.0
netbios-primary-ns = 0.0.0.0
netbios-secondary-ns = 0.0.0.0
must-accept-address-assign = no
pool-summary = no
pool-chaining = no
pool-ospf-adv-type = type-1
pool-base-address = [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0+
```

```
assign-count = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 +
pool-name = [ "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" ""+
rip-policy = Poison-Rvrs
summarize-rip-routes = no
rip-trigger = yes
min-rip-trigger-delay = 5
max-rip-trigger-delay = 8
bootp-enabled = no
bootp-relay = { no [ 0.0.0.0 0.0.0.0 ] }
drop-source-routed-ip-packets = no
ignore-def-route = yes
rarp-enabled = no
udp-cksum = yes
tcp-timeout = 0
dialout-poison = no
telnet-password = ""
user-profile = admin
shared-prof = no
dns-list-attempt = no
static-pref = 100
rip-pref = 100
rip-queue-depth = 50
ospf-pref = 10
ospf-ase-pref = 150
ospf-global = { no yes 0 }
rip-tag = c8:00:00:00
rip-ase-type = 1
iproute-cache-enable = yes
iproute-cache-size = 0
ipport-cache-enable = yes
suppress-host-routes = no
sntp-info = { sntp-disabled utc+0000 [ 192.168.120.10 0.0.0.0 0.0.0.0 ] 10 }
dns-list-size = 6
client-primary-dns-server = 0.0.0.0
client-secondary-dns-server = 0.0.0.0
allow-as-client-dns-info = True
dns-local-table = { no no [ { "" 0.0.0.0 } { "" 0.0.0.0 } { "" 0.0.0.0 } { 0+
multicast-forwarding = no
mbone-profile = ""
mbone-lan-interface = { { any-shelf any-slot 0 } 0 }
multicast-hbeat-addr = 0.0.0.0
multicast-hbeat-port = 0
multicast-hbeat-slot-time = 0
multicast-hbeat-Number-Slot = 0
multicast-hbeat-Alarm-threshold = 0
multicast-hbeat-src-addr = 0.0.0.0
multicast-hbeat-src-addr-mask = 0.0.0.0
sec-domain-name = ""
multicast-member-timeout = 360
finger = no
ignore-icmp-redirects = no
icmp-reply-directed-bcast = yes
```

```
send-icmp-dest-unreachable = yes
global-vrouter = main
router-id = 0.0.0.0
default-filter-cache-time = 1440
default-prt-cache-time = 1440
tcp-syn-flood-protect = no
throttle-no-port-match-udp-traffic-on-slot = no
pim-options = { no no 0.0.0.0 0 60 }
multiple-mbone = { [ "" "" "" "" ] [ { { any-shelf any-slot 0 } 0 } { { +
```

IP-INTERFACE

Description A profile that enables you to configure a logical IP interface for an Ethernet port.

Usage Following is a listing of the `ip-interface` profile with its default settings:

```
[in IP-INTERFACE/{ { any-shelf any-slot 0 } 0 }]
interface-address* = { { any-shelf any-slot 0 } 0 }
ip-address = 0.0.0.0/0
proxy-mode = Off
rip-mode = routing-off
route-filter = ""
rip2-use-multicast = yes
multicast-allowed = no
multicast-rate-limit = 100
multicast-group-leave-delay = 0
directed-broadcast-allowed = yes
vrouter = ""
management-only-interface = no
```

Dependencies Consider the following:

- For `ip-interface` profiles, the default profile (with the zero logical-item number) must have an IP address configured, or none of the other `ip-interface` profiles for the same port will function. Do not delete the default profile if you want your other configurations to work.
- If `proxy-mode` is enabled in any of the `ip-interface` profiles for a given Ethernet port, it is enabled for all ARP requests coming into the physical port.

ip-options

Description A subprofile that enables you to configure connection-specific IP-routing settings.

Usage Following is a listing of the `ip-options` subprofile with its default settings:

```
[in CONNECTION/"":ip-options]
ip-routing-enabled = yes
vj-header-prediction = yes
remote-address = 0.0.0.0/0
local-address = 0.0.0.0/0
routing-metric = 1
preference = 60
down-preference = 120
private-route = no
address-pool = 0
ip-direct = 0.0.0.0
rip = routing-off
route-filter = ""
source-ip-check = no
multicast-allowed = no
multicast-rate-limit = 100
multicast-group-leave-delay = 0
client-dns-primary-addr = 0.0.0.0
client-dns-secondary-addr = 0.0.0.0
client-dns-addr-assign = yes
client-default-gateway = 0.0.0.0
tos-options = { no 000 normal incoming precedence-tos 00 }
tos-filter = ""
client-wins-primary-addr = 0.0.0.0
client-wins-secondary-addr = 0.0.0.0
client-wins-addr-assign = yes
private-route-table = ""
private-route-profile-required = no
igmp-options = { 2 125 100 10 2 }
```

See Also `tos-options`

IP-ROUTE

Description A profile that defines a static IP route. The system adds the specified route to the routing table explicitly, rather than through dynamic updates when RIP is enabled on an interface. Static routes enable the system to communicate with another network without the added overhead of enabling RIP.

Usage Following is a listing of the `ip-route` profile with its default settings:

```
[in IP-ROUTE/"" (new)]
name* = ""
dest-address = 0.0.0.0/0
netmask = 0.0.0.0
gateway-address = 0.0.0.0
metric = 8
cost = 1
preference = 60
third-party = no
ase-type = type-1
ase-tag = c0:00:00:00
private-route = no
active-route = yes
ase7-adv = N/A
vrouter = ""
inter-vrouter = ""
```

L

l2tp-config

Description An `l2-tunnel-global` subprofile for configuring Layer 2 Tunneling Protocol (L2TP) timers, retry parameters for tunnel establishment, and other L2TP access concentrator (LAC) operations. These settings affect the system in all L2TP negotiations. They are not specific to one L2TP network server (LNS).

Usage Following is a listing of the `l2tp-config` subprofile with its default settings:

```
[in L2-TUNNEL-GLOBAL:l2tp-config]
first-retry-timer = 1000
retry-count = 6
hello-timer = 60
control-connect-establish-timer = 60
lac-incoming-call-timer = 60
base-udp-port = 0
dialout-auth-lns = no
dialout-send-profile-name = no
verify-remote-host-name = no
acct-tunnel-connection-encoding = normal
tunnel-server-pre-sccrq-lookup = no
```

L2-TUNNEL-GLOBAL

Description A profile that enables you to configure Layer 2 Tunneling Protocol (L2TP) access concentrator (LAC) operations globally. The parameters in the l2-tunnel-global profile are used for all LAC operations, such as global tunnel authentication. They are not specific to one L2TP network server (LNS).

Usage Following is a listing of the `l2-tunnel-global` profile with its default settings:

```
[in L2-TUNNEL-GLOBAL]
l2tp-mode = disabled
l2tp-auth-enabled = no
l2tp-rx-window = 0
l2tp-system-name = ""
l2tp-config = { 1000 6 60 60 60 0 no no no normal no }
```

LIM-SPARING-CONFIG

Description A profile that enables you to configure line interface module (LIM) redundancy (sparing) and designate the primary and secondary LIM.

Usage Following is a listing of the `lim-sparing-config` profile with its default settings:

```
[in LIM-SPARING-CONFIG/{ any-shelf any-slot 0 } (new)]
physical-address* = { any-shelf any-slot 0 }
spare-slot-type = unknown
sparing-mode = inactive
spare-slot-number = slot-16
manually-spared-slot-number = any-slot
if-sparing-config = [ any-slot any-slot any-slot any-slot any-slot slot any+
auto-lim-sparing-config = { [ { yes 10 100 3 12 } { yes 10 100 3 12 } { 10 +
```

lim-sparing-config *n*

Description A subprofile that enables you to configure the redundancy of up to 16 line interface modules (LIMs).

Usage Following is a listing of the `lim-sparing-config` *n* subprofile with its default settings:

```
[in LIM-SPARING-CONFIG/{ any-shelf any-slot 0 }:auto-lim-sparing-config:
lim-sparing-config[1] }
active = yes
error-averaging-period = 10
error-threshold = 100
up-down-threshold = 3
modem-failure-threshold = 12
```

LIM-SPARING-STATUS

Description A read-only profile that indicates whether line interface module (LIM) sparing is enabled, as well as the slot numbers of the primary and secondary LIMs.

Usage Read-only. Following is a listing of the `lim-sparing-status` profile with its default settings:

```
[in LIM-SPARING-STATUS]
spare-slot-type = none
sparing-mode = inactive
spare-slot-number = any-slot
spared-slot-number = any-slot
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
lim-sparing-status = [ { yes yes sparing-none } { yes yes sparing-none } { +
```

lim-sparing-status[n]

Description One of 16 port subprofiles that indicate the redundancy status of a given line interface module (LIM).

Usage Read-only. Following is a listing of the `lim-sparing-status` subprofile with its default settings:

```
[in LIM-SPARING-STATUS:lim-sparing-status[1]]
active = yes
lim-status-ok = yes
sparing-state = sparing-none
```

line-config

Description A subprofile that has a differing function depending on the profile that includes it.

- In an `al-dmt`, `ds1-atm`, `hdsl2`, `sdsl`, and `shdsl` profile, the `line-config` subprofile configures the corresponding line interface module (LIM).
- In an `ds3-atm`, `e3-atm` and `oc3-atm` profile the `line-config` subprofile configures the lines for the corresponding trunk module.
- In an `atm-internal` profile the `line-config` subprofile configures an internal line.

Usage Following are listings of the `line-config` subprofiles with their default values:

- ```
  [in AL-DMT/{ any-shelf any-slot 0 }:line-config (new)]
  trunk-group = 0
  nailed-group = 1
  vp-switching-vpi = 15
  activation = static
  call-route-info = { any-shelf any-slot 0 }
  rate-adapt-mode-up = automatic-at-startup
  rate-adapt-mode-down = automatic-at-startup
  rate-adapt-ratio-up = 100
  rate-adapt-ratio-down = 100
  ```
  ```

```
max-aggr-power-level-up = 13
max-aggr-power-level-down = 20
max-power-spectral-density = 40
line-code = auto-select
line-latency-down = fast
line-latency-up = fast
trellis-encoding = yes
gain-default = 20-db
upstream-start-bin = 6
upstream-end-bin = 31
downstream-start-bin = 32
downstream-end-bin = 255
loop-back = none
bit-swapping = no
fbm-dbm-mode = fbm
alcatel-us-413-boost = unknown
```

- [in ATM-INTERNAL/{ any-shelf any-slot 0 }:line-config (new)]
  ```
  nailed-group = 1
  vp-switching-vpi = 15
  ```
- [in DS1-ATM/{ any-shelf any-slot 0 }:line-config (new)]
  ```
  frame-type = esf
  encoding = b8zs
  nailed-group = 4294967246
  loopback = no-loopback
  clock-source = not-eligible
  clock-priority = high-priority
  FDL = none
  send-code = no-code
  front-end-type = short-haul
  line-length = 1-133
  line-build-out = 0-db
  pcm-mode = clear-channel
  coset-enabled = yes
  scrambling-enabled = no
  hec-correction-enabled = no
  vp-switching-vpi = 15
  vc-oamf4-support=[yes yes yes yes yes yes yes yes yes yes yes yes yes yes+
  ima-option-config = { { 0 3 fast auto 10 0 } { 3 fast 10 100 auto 10 +
  status-change-trap-enable = no
  ```
- [in DS3-ATM/{ any-shelf any-slot 0 }:line-config (new)]
  ```
  trunk-group = 9
  nailed-group = 1
  activation = static
  call-route-info = { any-shelf any-slot 0 }
  loopback = no-loopback
  high-tx-output = no
  receive-equalization = no
  framer-mode = C-BIT-PLCP
  vpi-vci-range = vpi-0-255-vci-32-8191
  vc-switching-vpi = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ]
  vc-oamf4-support = [ yes yes yes yes yes yes yes yes yes yes yes yes yes yes+
  ```

```
clock-source = not-eligible
clock-priority = middle-priority
cell-payload-scramble = yes
status-change-trap-enable = no
```

- [in E3-ATM/{ any-shelf any-slot 0 }:line-config (new)]

```
trunk-group = 9
nailed-group = 1
call-route-info = { any-shelf any-slot 0 }
loopback = no-loopback
high-tx-output = no
framer-mode = g832-adm
vpi-vci-range = vpi-0-255-vci-32-8191
vc-switching-vpi = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ]
vc-oamf4-support = [ yes yes yes yes yes yes yes yes yes yes yes yes yes yes+
clock-source = not-eligible
clock-priority = middle-priority
cell-payload-scramble = yes
status-change-trap-enable = no
```

- [in HDSL2/{ any-shelf any-slot 0 }:line-config (new)]

```
trunk-group = 0
nailed-group = 1
vp-switching-vpi = 15
activation = static
call-route-info = { any-shelf any-slot 0 }
unit-type = coe
ntr-enabled = no
clock-source = not-eligible
clock-priority = middle-priority
loop-back = none
margin = 2db
snext-margin = disable
rate-mode = auto
min-rate = 72000
max-rate = 2312000
gshdsl-standard-network-type = north-american-annex-a
annexb-anfp-enabled = no
gshdsl-psd-type = symmetric
master-binding-port = no
```

- [in OC3-ATM/{ any-shelf any-slot 0 }:line-config (new)]

```
trunk-group = 0
nailed-group = 1
call-route-info = { any-shelf any-slot 0 }
loopback = no-loopback
framer-mode = sonet
framer-rate = STS-3c
tx-scramble-disabled = no
tx-cell-payload-scramble-disabled = no
loop-timing = no
vpi-vci-range = vpi-0-255-vci-32-8191
vc-switching-vpi = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ]
vc-oamf4-support = [ yes yes yes yes yes yes yes yes yes yes yes yes yes yes+
```

```
clock-source = not-eligible
clock-priority = middle-priority
```

- [in SDSL/{ any-shelf any-slot 0 }:line-config (new)]

```
trunk-group = 0
nailed-group = 1
vp-switching-vpi = 15
activation = static
call-route-info = { any-shelf any-slot 0 }
data-rate-mode = singlebaud
max-rate = 784000
auto-base-rate = 272000
unit-type = coe
line-mode = atm
loop-back = none
```

- [in SHDSL/{ any-shelf any-slot 0 }:line-config (new)]

```
trunk-group = 0
nailed-group = 1
vp-switching-vpi = 15
activation = static
call-route-info = { any-shelf any-slot 0 }
unit-type = coe
ntr-enabled = no
clock-source = not-eligible
clock-priority = middle-priority
loop-back = none
margin = 2db
snext-margin = disable
rate-mode = auto
min-rate = 72000
max-rate = 2312000
gshdsl-standard-network-type = north-american-annex-a
annexb-anfp-enabled = no
gshdsl-psd-type = symmetric
master-binding-port = no
```

Dependencies Settings in the `atm-internal` profile currently apply only to ISDN digital subscriber line (IDSL) or router modules.

LINE-DIAG

Description A profile that enables you to configure line testing settings.

Usage Following is a listing of the `line-diag` profile with its default settings:

```
[in LINE-DIAG/{ shelf-1 slot-13 1 }]
physical-address* = { shelf-1 slot-13 1 }
bert-timer = 1-minute
bert-enable = no
idt-enable = no
idt-num-of-msg = 1000
```

LINE-DIAG-STAT

Description A read-only profile that indicates the state of the line diagnostics set in the `line-diag` profile.

Usage Read-only. Following is a listing of the `line-diag-stat` profile with its default settings:

```
[in LINE-DIAG-STAT/{ shelf-1 slot-13 1 }]
physical-address* = { shelf-1 slot-13 1 }
bert-operation-state = stopped
idt-operation-state = stopped
bert-error-counter = 0
idt-send-count = 0
idt-recv-count = 0
idt-error-counter = 0
```

line-interface

Description A subprofile that enables you to configure an ISDN digital subscriber line (IDSL).

Usage Following is a listing of the `line-interface` subprofile with its default settings:

```
[in IDSL/{ any-shelf any-slot 0 }:line-interface (new)]
enabled = no
dual-link = no
channel-config = [ { switched-channel 1 } { switched-channel 1 } ]
dial-plan = 0
answer-number-1 = ""
answer-number-2 = ""
idsl-bandwidth = idsl-128
ignore-lineup = system-defined
```

LINE-TESTS

Description A profile that activates either the galvanic isolation and multiport tone tests. Each line interface module (LIM) has a `line-tests` profile

Usage Following is a listing of a `line-tests` profile with its default settings:

```
[in LINE-TESTS]
physical-address* = { shelf-1 slot-5 0 }
clt-slot-number = slot-13
start-port = 0
end-port = 0
port-activation-array = [ no no no no no no no no no no no no +
port-status = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0+
specific-ports = no
test-type = gal-iso
test-terminal = external-tester-terminal
activate-test = no
```

LOAD-SELECT

Description A profile that enables you to configure which module images to load to flash memory when the `load tar` command is issued.

Usage Following is a listing of a `load-select` profile with its default settings:

- For all Stinger models except the Stinger MRT:

```
[in LOAD-SELECT]
unknown-cards = auto
sdsl-atm = auto
al-dmtadsl-atm = auto
sdsl-atm-v2 = auto
dadsl-atm-24 = auto
glite-atm-48 = auto
hdsl2 = auto
annexb-dmtadsl = auto
t1000 = auto
ima = auto
stngr-32-idsl = auto
40-dmt-adsl = auto
48-dmt-adsl = auto
72-shdsl = auto
72-ct-dmt-adsl = auto
72-gs-dmt-adsl = auto
32-dmt-aslam = auto
vdsl = auto
```

- For the Stinger MRT:

```
[in LOAD-SELECT]
unknown-cards = auto
mrt-dmt = auto
```

Note An explicit `load` command for a particular module type overrides the settings in the `Load-Select` profile.

LOG

Description A profile that enables you to configure systemwide event-logging settings. Systemwide event logging includes the Stinger log buffer accessed by the `log` command, and any `syslog` host designated by the `log` profile.

Usage Following is a listing of a `log` profile with its default settings:

```
[in LOG]
save-level = info
save-number = 100
software-debug = no
call-info = none
syslog-enabled = no
host = 0.0.0.0
port = 514
facility = local0
syslog-format = tnt
log-call-progress = no
log-software-version = no
syslog-level = info
auxiliary-syslog = [ { no info 0.0.0.0 514 local0 } { no info 0.0.0.0 local+
history-size = 0
```

loopback-config

Description A subprofile that enables you to configure loopback test parameters.

Usage Following is a listing of a `loopback-config` subprofile with its default settings:

```
[in ATM-OAM/{ { any-shelf any-slot 0 } 0 0 }:loopback-config (new)]
enabled = no
loopback-level = segment
loopback-cells-per-test = 1
error-threshhold = 0
restart-after-trap = no
total-loopback-tests = 1
test-iteration-interval = 30
```

M

magic-keys

Description A subprofile for internal use only.

Usage Read-only. Following is a sample listing of the `magic-keys` subprofile:

```
[in ATMPVC-STAT/unit1:magic-keys]
magic-keys[1] = 0
magic-keys[2] = 201326688
```

See Also `vcc-members`, `vcc-members` *N*

margin-config

Description A subprofile that enables you to configure noise-margin values for asymmetric digital subscriber line (ADSL) line interface modules (LIMs).

Usage Following is a sample listing of a `margin-config` subprofile:

```
[in AL-DMT/{ shelf-1 slot-4 1 }:margin-config]
target-noise-margin-up=6
target-noise-margin-down=6
min-noise-margin-up=0
min-noise-margin-down=0
max-add-noise-margin-up=31
max-add-noise-margin-down=31
ra-downshift-margin-up=0
ra-downshift-int-up=0
ra-downshift-margin-down=0
ra-downshift-int-down=0
ra-upshift-margin-up=0
ra-upshift-int-up=0
ra-upshift-margin-down=0
ra-upshift-int-down=0
```

MCAST-SERVICE

Description A profile that enables you to define sets of multicast destination addresses that can be accessed by multicast clients.

Usage Set values in this profile to configure up to 255 destination filters. Following is a listing of the `mcast-service` profile with its default settings:

```
[in MCAST-SERVICE/"" (new)]
service-name* = ""
active = no
snmp-trap-enable = no
filter-type = none
filter-list = [ { no 0.0.0.0 } { no 0.0.0.0 } { no 0.0.0.0 } { no 0.0.0 n+
```

menu-mode-options

Description *Not used.*

Location TERMINAL-SERVER

metrics-index

Description *Not supported.* A subprofile that contains a complex index value into the set of parameters associated with the metrics-tag and metrics-direction parameters.

Usage Following is a listing of the metrics-index subprofile with its default settings:

```
[in PNNI-METRICS/{ 0 0 incoming 0 }:metrics-index (new)]
node-index = 1
metrics-tag = 0
metrics-direction = incoming
metrics-index = 0
```

MODEM

Description *Not used.*

modem-configuration

Description *Not used.*

Location TERMINAL-SERVER

mp-answer

Description *Not supported.*

Location ANSWER-DEFAULTS

mp-options

Description *Not supported.* A connection subprofile containing settings for incoming MultiLink Protocol (MP) session requests.

Usage Following is a listing of the mp-options subprofile with its default settings. These settings are not supported in Stinger units.

```
[in CONNECTION/"":mp-options]
base-channel-count = 1
minimum-channels = 1
maximum-channels = 2
```

mpp-answer

Description *Not supported.* An `answer-defaults` subprofile containing default settings for incoming MultiLink Protocol Plus™ (MPP or MP+) session requests.

Location `ANSWER-DEFAULTS`

mpp-options

Description *Not supported.* An `answer-defaults` subprofile containing default settings for incoming MultiLink Protocol Plus™ (MPP or MP+) session requests.

Location `CONNECTION/""`

MULTI-LINK-FR

Description A profile that enables you to configure a frame relay connection with multiple links.

Usage Following is a listing of the `multi-link-fr` profile with its default settings:

```
[in MULTI-LINK-FR/"" (new)]
mfr-bundle-name* = ""
active = no
mfr-bundle-type = mfr-dte
max-bundle-members = 1
min-bandwidth = 0
```

multiple-mbone

Description A subprofile to specify the parameters used to configure multiple multicast backbone (MBONE) router interfaces.

Usage Following is a listing of the `multiple-mbone` subprofile with its default settings:

```
[in IP-GLOBAL:multiple-mbone]
mbone-profile = [ "" "" "" "" ]
mbone-lan-interface = [ { { any-shelf any-slot 0 } 0 } { { any-shelf any-slo+
```

N

node-pgl

Description A subprofile that enables you to configure the node peer group leader (PGL) in the Private Network-to-Network Interface (PNNI).

Usage Following is a listing of the `node-pgl` profile with its default settings:

```
[in PNNI-NODE-CONFIG/1:node-pgl ]
leadership-priority = 0
parent-node-index = 0
init-time = 15
override-delay = 30
reelect-time = 15
```

node-scope-mapping

Description *Not currently used.* A subprofile for specifying scope mapping information for the node.

Usage Following is a listing of the `node-scope-mapping` subprofile with its default settings:

```
[in PNNI-NODE-CONFIG/1:node-scope-mapping]
local-net = 96
local-net-plus-1 = 96
local-net-plus-2 = 96
site-minus-1 = 80
intra-site = 80
site-plus-1 = 72
organization-minus-1 = 72
intra-organization = 64
organization-plus-1 = 64
community-minus-1 = 64
intra-community = 48
community-plus-1 = 48
regional = 32
inter-regional = 32
global = 0
```

node-svcc-rcc

Description *Not currently used.* A subprofile that specifies SVCC-based routing control channel (RCC) variables

Usage Following is a listing of the node-svcc-rcc subprofile with its default settings:

```
[in PNNI-NODE-CONFIG/1:node-svcc-rcc ]
init-time = 4
retry-time = 30
calling-integrity-time = 5
called-integrity-time = 50traffic-descr-index = 0v
traffic-descr-index = 0
```

node-timer

Description A subprofile that enables you to configure initial Private Network-to-Network Interface (PNNI) timer settings and significant change thresholds for the node.

Usage Following is a listing of the node-time subprofile with its default settings:

```
[in PNNI-NODE-CONFIG/1:node-timer ]
ptse-holddown = 10
hello-holddown = 10
hello-interval = 15
hello-inactivity-factor = 5
hlink-inact = 120
ptse-refresh-interval = 1800
ptse-lifetime-factor = 200
rxmt-interval = 5
peer-delayed-ack-interval = 10
avcr-pm = 50
avcr-mt = 3
cdv-pm = 25ctd-pm = 50
ctd-pm = 50
```

Location PNNI-NODE-CONFIG *N*

O

OC3-ATM

Description A profile that enables you to configure settings for the OC3-ATM interface.

Usage Following is a listing of the `oc3-atm` profile with its default settings:

```
[in OC3-ATM/{ shelf-1 trunk-module-1 1 }]
name = 1:17:1
physical-address* = { shelf-1 trunk-module-1 1 }
enabled = no
spare-physical-address = { any-shelf any-slot 0 }
sparing-mode = inactive
ignore-lineup = system-defined
aps-config-name = pg1
```

OC3-ATM-STAT

Description A read-only profile that indicates ATM framer status and error counters for an OC3-ATM interface.

Usage Read-only. Following is a sample listing of an `oc3-atm-stat` profile:

```
[in OC3-ATM-STAT/{ shelf-1 trunk-module-1 1 }]
physical-address* = { shelf-1 trunk-module-1 1 }
line-state = active
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-255-vci-32-1023
vc-switching-vpi = "0 1 2 3 4 5 6"
vcc-vpi = [ 0 1 2 3 4 5 6 0 0 0 0 0 0 0 0 0 ]
aps-config-name = ""
aps-channel-status = unknown
aps-channel-sd-condition = False
aps-channel-sf-condition = False
aps-channel-low-direction = low-none
aps-channel-recv-sd-count = 0
aps-channel-recv-sf-count = 0
aps-channel-recv-ais-count = 0
aps-channel-recv-rdi-count = 0
loss-of-signal = False
loss-of-frame = False
out-of-frame = False
section-state = sonet-section-active-no-defect
path-state = sonet-path-active-no-defect
ais-receive = False
yellow-receive = False
out-of-cell-delineation = False
```

```
loss-of-cell-delineation = False
aps-receive = False
rsop-bip-error-count = 0
rlop-bip-error-count = 0
rlop-febe-error-count = 0
rpop-bip-error-count = 0
rpop-febe-error-count = 0
racp-chcs-error-count = 0
racp-uchcs-error-count = 0
racp-rx-cell-count = 0
tacp-tx-cell-count = 0
frequency-justification-count = 3
HEC-cell-drop-counter = 0
FIFO-overflow-counter = 0
idle-cell-counter = 3778231663
valid-cell-counter = 280935
time-elapsed = 191
performance-monitoring = { 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 }
interval-performance-monitoring = [ { 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
```

ospf

Description A subprofile that enables you to configure Open Shortest Path First (OSPF) routing on an Ethernet interface.

Usage Following is a listing of an `ospf` subprofile with its default settings:

```
[in IP-INTERFACE/{ { any-shelf any-slot 0 } 0 }:ospf (new)]
active = no
area = 0.0.0.0
area-type = normal
hello-interval = 10
dead-interval = 40
priority = 5
authen-type = simple
auth-key = ascend0
key-id = 0
cost = 1
down-cost = 16777215
ase-type = type-1
ase-tag = c0:00:00:00
transit-delay = 1
retransmit-interval = 5
non-multicast = no
network-type = Broadcast
poll-interval = 10
profile-type = lan
md5-auth-key = ascend0
```

OSPF-AREA-RANGE

Description A profile that enables you to define an area within an Open Shortest Path First (OSPF) autonomous system.

Usage Following is a listing of an `ospf-area-range` profile with its default settings:

```
[in ospf-area-range/"" (new)]
name* = ""
area-id = 0.0.0.0
area-network-addr = 0.0.0.0/0
area-network-mask = 0.0.0.0
advertize = no
```

ospf-global

Description A subprofile that enables you to define global Open Shortest Path First (OSPF) behavior.

Usage Following is a listing of an `ospf-global` subprofile with its default settings:

```
[in IP-GLOBAL:ospf-global (new)]
enable = no
as-boundary-router = yes
ospf-set-trap = 00:00:00:00
ospf-max-lsa = 0
```

OSPF-NBMA-NEIGHBOR

Description A profile that enables you to configure an Open Shortest Path First (OSPF) router for operation on a nonbroadcast multiaccess (NBMA) network.

Usage Following is a listing of an `ospf-nbma-neighbor` profile with its default settings:

```
[in ospf-nbma-neighbor/"" (new)]
name* = ""
host-name = ""
ip-address = 0.0.0.0
dr-capable = no
```

ospf-options

Description A subprofile that contains settings for Open Shortest Path First (OSPF) routing.

Usage Following is a listing of an `ospf-options` subprofile with its default settings:

```
[in CONNECTION/"":ip-options:ospf-options (new)]
active = no
area = 0.0.0.0
area-type = normal
hello-interval = 30
dead-interval = 120
priority = 5
authen-type = simple
auth-key = ascend0
key-id = 0
cost = 10
down-cost = 1000
ase-type = type-1
ase-tag = c0:00:00:00
transit-delay = 1
retransmit-interval = 5
non-multicast = no
network-type = Point-to-Point
poll-interval = 10
md5-auth-key = ascend0
```

OSPF-VIRTUAL-LINK

Description A profile that includes settings for creating Open Shortest Path First (OSPF) virtual connections .

Usage Following is a listing of an `ospf-virtual-link` profile with its default settings:

```
[in OSPF-VIRTUAL-LINK/0.0.0.0 (new)]
neighbor-router-id* = 0.0.0.0
transit-area-id = 0.0.0.0
rexmit-delay = 5
xmit-delay = 1
hello-interval = 30
dead-interval = 120
authen-type = simple
authen-key = ascend0
key-id = 0
md5-authen-key = ascend0
```

outgoing-queue[n]

Description A subprofile that enables you to configure Asynchronous Transfer Mode (ATM) for an outgoing queue. Each configured queue must be associated with an outgoing port that is either a control module slot or a trunk port. Each outgoing port can have multiple outgoing queues.

Usage Following is a listing of the `outgoting-queue` subprofile with its default settings:

```
[in SWITCH-CONFIG/tram-18:atm-parameters:outgoing-queue[1]]
active = yes
name = 1:18:1
physical-address = { shelf-1 trunk-module-2 1 }
cbr = yes
real-time-vbr = no
non-real-time-vbr = no
ubr = no
high-priority-weight = 5
low-priority-weight = 0
source-port = { shelf-1 trunk-module-2 2 }
hop-level = any-level
```

outgoing-shaper[*n*]

Description A subprofile that enables you to configure the shapers available for the entire system. A trunk port might use zero, one, or more shaper(s) to shape outgoing Asynchronous Transfer Mode (ATM) traffic with certain virtual path identifiers (VPIs).

Usage Following is a listing of the `outgoing-shaper` subprofile with its default settings:

```
[in SWITCH-CONFIG:atm-parameters:outgoing-shaper[1] (new)]
queue-index = 0
vpi = 1
bandwidth = 8000
```

output-filters[*n*]

Description A subprofile that defines an output-filter specification. The filter specifications are applied in order (1 through 12) to the inbound packet stream. The order in which the output filters are defined is significant.

Usage To define an output filter specification, list the parameters of the subprofile as follows, and set the appropriate values:

```
[in FILTER/"":output-filters[1]]
valid-entry = no
forward = no
Type = generic-filter
gen-filter = { 0 0 no no 00:00:00:00:00:00:00:00:00:00:00:00 00:00:00+
ip-filter = { 0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 none 0 none 0 no }
route-filter = { 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0 none }
tos-filter = { 0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 none 0 none 0 000 no+
```

P

password-profile

Description A subprofile of `external-auth` containing settings for calling line ID (CLID) and Dialed Number Information Service (DNIS) passwords set in a RADIUS profile.

Usage Following is a listing of a `password-profile` subprofile with its default settings:

```
[in EXTERNAL-AUTH:password-profile]
clid = ""
dnis = ""
banner = ******
init-banner = ******
pool = ******
frdl = ******
dialout = ******
dialout-routes = ******
```

performance-monitoring

Description A read-only subprofile that indicates cumulative synchronous optical network (SONET) performance counters, which are reset at the end of every 15-minute interval.

Usage Read-only. Following is a listing of the `performance-monitoring` subprofile with its default settings:

```
[in OC3-ATM-STAT/{ shelf-1 trunk-module-2 1 }:performance-monitoring]
sonet-section-errored-seconds=0
sonet-section-severely-errored-seconds=0
sonet-section-severely-errored-framing-seconds=0
sonet-section-coding-violations=0
sonet-line-errored-seconds=0
sonet-line-severely-errored-seconds=0
sonet-line-coding-violations=0
sonet-line-unavailable-seconds=0
sonet-far-end-line-errored-seconds=0
sonet-far-end-line-severely-errored-seconds=0
sonet-far-end-line-coding-violations=0
sonet-far-end-line-unavailable-seconds=0
sonet-path-errored-seconds=0
sonet-path-severely-errored-seconds=0
sonet-path-coding-violations=0
sonet-path-unavailable-seconds=0
sonet-far-end-path-errored-seconds=0
sonet-far-end-path-severely-errored-seconds=0
sonet-far-end-path-coding-violations=0
sonet-far-end-path-unavailable-seconds=0
```

physical-statistic

Description A read-only subprofile of the `al-dmt-stat`, `hdsl2-stat`,and `sdsl-stat` profiles that reports statistics about xDSL performance.

Usage A read-only profile. Following is a sample listing of the each of the different `physical-statistics` subprofiles for the asymmetric digital subscriber line (ADSL), HDSL2, and SDSL line interface modules (LIMs):

- ```
  [in AL-DMT-STAT/{ shelf-1 slot-11 21 }:physical-statistic]
  line-up-timer = { 0 1 4 }
  rx-signal-present = yes
  up-dwn-cntr = 1
  self-test = passed
  noise-margin-down = 112
  attenuation-down = 1
  output-power-down = 7
  noise-margin-up = 9
  attenuation-up = 1
  output-power-up = 11
  near-end-fec = 0
  near-end-crc = 1
  near-end-hec = 0
  far-end-fec = 0
  far-end-crc = 0
  far-end-hec = 0
  received-rs-blocks = 15887016
  transmitted-rs-blocks = 15887016
  incoming-cells = 5097739
  outgoing-cells = 13989942
  ```
- ```
  [in HDSL2-STAT/{ shelf-1 slot-3 21 }:physical-statistic]
  line-up-timer = { 0 1 11 }
  rx-signal-present = yes
  line-quality = 41
  up-dwn-cntr = 1
  self-test = passed
  transmit-power = 10
  framer-sync-status = in-sync
  code-violations = 0
  errored-second = 0
  severely-errored-second = 0
  losw-second = 1
  unavailable-second = 0
  loop-attenuation = 107
  snr-margin = 42
  stur-loop-attenuation = 0
  stur-snr = 40
  ```

- [in IDSL-STAT/{ shelf-1 slot-14 1 }:physical-statistic]
  line-up-timer = { 0 0 6 }
  up-dwn-cntr = 107
  error-count = [0 0 0]
- [in SDSL-STAT { shelf-1 slot-1 0 }:physical-statistic]
  line-up-timer={ 1 13 55 }
  rx-signal-present=yes
  line-quality=15
  up-dwn-cntr=0
  self-test=passed
  far-end-db-attenuation=4
  firmware-startup-stage=normal-operation
  bert-timer=2 minutes
  bert-enable=no
  bert-operation-state=stopped
  bert-error-counter=0
- [in SHDSL-STAT/{ shelf-1 slot-3 21 }:physical-statistic]
  line-up-timer = { 0 1 11 }
  rx-signal-present = yes
  line-quality = 41
  up-dwn-cntr = 1
  self-test = passed
  transmit-power = 10
  framer-sync-status = in-sync
  code-violations = 0
  errored-second = 0
  severely-errored-second = 0
  losw-second = 1
  unavailable-second = 0
  loop-attenuation = 107
  snr-margin = 42
  stur-loop-attenuation = 0
  stur-snr = 40

See Also physical-status

physical-status

Description A read-only subprofile of the `al-dmt-stat`, `hdsl2-stat`,and `sdsl-stat` profiles that reports the status of XDSL interfaces.

Usage A read-only profile. Following is a sample listing of the each of the different `physical-status` subprofiles for the asymmetric digital subscriber line (ADSL), HDSL2, and SDSL line interface modules (LIMs):

- ```
  [in AL-DMT-STAT/{ shelf-1 slot-11 21 }:physical-status]
  if-group-index = 367
  unit-type = coe
  dev-line-state = port-up
  up-stream-rate-fast = 800000
  down-stream-rate-fast = 7744000
  up-stream-rate-interleaved = 0
  down-stream-rate-interleaved = 0
  up-stream-latency = fast
  down-stream-latency = fast
  firmware-ver = 069.5
  ansi-adsl-ver = 2
  initial-adsl-ver = 1
  hardware-ver = 5
  modem-hw-state = init-ok
  accum-bit-err = 0
  num-sec-valid = 3886
  num-sec-invalid = 0
  operational-mode = ansi-alcatel-1-4-1
  ```
- ```
  [in HDSL2-STAT/{ shelf-1 slot-3 21 }:physical-status]
  if-group-index = 143
  unit-type = coe
  interface-type = hdsl2
  dev-line-state = port-up
  operational-rate = 1544000
  firmware-ver = "B64 "
  hardware-ver = 0
  network-type = annex-b-anfp
  ```
- ```
  [in IDSL-STAT/{ shelf-1 slot-14 1 }:physical-status]
  if-group-index = 444
  ```
- ```
  [in SDSL-STAT { shelf-1 slot-1 0 }:physical-status ]
  if-group-index=0
  unit-type=coe
  dev-line-state=port-up
  up-stream-rate=784000
  down-stream-rate=784000
  major-firmware-ver=13
  minor-firmware-ver=2
  hardware-ver=2
  ```

- [in SHDSL-STAT/{ shelf-1 slot-2 10 }:physical-status]
  if-group-index = 226
  unit-type = coe
  interface-type = g-shdsl
  dev-line-state = startup-handshake
  operational-rate = 0
  firmware-ver = "R2.0 "
  hardware-ver = 0
  network-type = annex-a

See Also physical-statistic

pim-group-rp-mapping

Description A profile to configure associations between groups and rendezvous points (RPs). These static mappings provide a basic interoperability mechanism if the automatic methods of obtaining mappings should fail.

Each pim-group-rp-mapping profile specifies a mapping between an RP (specified as a reachable IP address) and a range of multicast groups (specified as a group and mask). The system uses these mappings to determine an RP for a given group.

Usage Following are the parameters, shown with their default settings, for configuring a static group-to-RP mapping:

```
[in PIM-GROUP-RP-MAPPING/""]
name* = ""
rp-address = 0.0.0.0
group-address = 0.0.0.0/0
group-mask = 0.0.0.0
```

pim-options

Description Subprofiles for enabling Protocol Independent Multicast sparse mode (PIM-SM) on a Stinger unit.

Usage Following are sample listings of pim-options profiles:

```
[in IP-GLOBAL:pim-options]
enable = no
cbsr-enable = no
cbsr-ip-address = 0.0.0.0
cbsr-priority = 0
cbsr-interval = 60
```

```
[in IP-INTERFACE/{ { any-shelf any-slot 0 } 0 }:pim-options]
enable = no
hello-interval = 30
hello-hold-time = 105
hello-priority-option = yes
hello-priority = 1
join-prune-interval = 60
join-prune-hold-time = 210
lan-delay-option = yes
```

```
lan-delay = 5000
override-interval = 2500
```

PNNI-IF-CONFIG

Description A profile that enables you to configure a Private Network-to-Network Interface (PNNI).

Usage Following is a sample listing of the `pnni-if-config` profile:

```
[in PNNI-IF-CONFIG/{ { any-shelf any-slot 0 } 0 } (new)]
address* = { { any-shelf any-slot 0 } 0 }
if-node-index = 1
if-aggr-token = 0
if-vp-capability = true
if-adm-weight-cbr = 5040
if-adm-weight-rt-vbr = 5040
if-adm-weight-nrt-vbr = 5040
if-adm-weight-abr = 5040
if-adm-weight-ubr = 5040
if-rcc-service-category = nrt-vbr
if-rcc-qos-name = default-ctl
external-change = no
```

PNNI-METRICS

Description A profile that enables you to configure the attachment of settings for routing metrics and attributes for Private Network-to-Network Interface (PNNI) nodes, links, and reachable addresses.

Usage Following is a sample listing of a `pnni-metrics` profile:

```
[in PNNI-METRICS/{ 1 0 incoming 0 }]
metrics-index* = { 1 0 incoming 0 }
metrics-classes = 0
metrics-gcac-clp = clpequal0or1
metrics-admin-weight = 5040
metrics1 = 4294967295
metrics2 = 4294967295
metrics3 = 4294967295
metrics4 = 4294967295
metrics5 = 4294967295
metrics6 = 4294967295
metrics7 = 4294967295
metrics8 = 4294967295
external-change = no
active = no
```

PNNI-NODE-CONFIG

Description A profile that enables you to configure settings that affect Private Network-to-Network Interface (PNNI) node operations.

Usage Following is a listing of the `pnni-node-config` profile with its default settings:

```
[in PNNI-NODE-CONFIG/1]
node-index* = 1
node-level = 96
node-id =00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00+
curr-node-id =
48:a0:39:84:0f:80:01:bc:72:00:01:d0:6a:96:00:ff:d0:6a:+
node-lowest = true
node-admin-status = up
node-domain-name = ""
node-atm-address =
39:84:0f:80:01:bc:72:00:01:d0:6a:96:00:ff:d0:6a:96+
node-peer-group-id = 00:00:00:00:00:00:00:00:00:00:00:00:00:00
curr-node-peer-group-id = 48:39:84:0f:80:01:bc:72:00:01:00:00:00:00
node-restricted-transit = false
node-complex-rep = false
node-pgl = { 0 0 15 30 15 }
node-timer = { 10 10 15 5 120 1800 200 5 10 50 3 25 50 }
node-svcc-rcc = { 4 30 35 50 0 }
node-scope-mapping = { 96 96 35 80 80 72 72 64 64 64 48 48 32 0 0 }
```

See Also `node-pgl`, `node-scope-mapping`, `node-svcc-rcc`, `node-timer`

pnni-node-prefix

Description A subprofile that contains the system or manually generated value used as the prefix for the default node Asynchronous Transfer Mode (ATM) address.

Usage Following is a listing of a `pnni-node-prefix` subprofile with its default settings:

```
[in ATM-PREFIX/default:pnni-node-prefix]
length = 13
address = 39:84:0f:80:01:bc:72:00:01:00:00:00:00
```

See Also `spvc-addr-prefix`, `svc-addr-prefix`

PNNI-ROUTE-ADDR

Description A profile that enables you to configure Private Network-to-Network Interface (PNNI) reachable addresses. A *reachable address* is an Asynchronous Transfer Mode (ATM) address that can be reached either directly through one of the unit's interfaces or through an advertising node that the unit can reach. You can configure a static route to a reachable address prefix, which enables the unit to reach all ATM addresses for end systems and other nodes whose ATM addresses match the prefix.

Usage Following is a listing of the `pnni-route-addr` profile with its default settings:

```
[in PNNI-ROUTE-ADDR/"" (new)]
name* = ""
addr-index = { 0 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:0+
if-index = 0
adv-node-id = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00
adv-port-id = 0
type = exterior
proto = other
pnni-scope = 0
vp-capability = false
metrics-tag = 0
ptse-id-ptse-id = 0
originate-advert = true
info = ""
oper-status = inactive
time-stamp = 0
external-change = no
active = no
```

See Also `addr-index`

PNNI-ROUTE-TNS

Description A profile that enables you to configure a static route to a Private Network-to-Network Interface (PNNI) transit network. A *transit network* lies between the networks of the two end points of a connection. A connection's data transits the network, but does not originate or stop there.

Usage Following is a listing of the `pnni-route-tns` profile which includes a listing of its associated subprofile.

```
[in PNNI-ROUTE-TNS/{ 0 other other 00:00:00:00 0 } ]
tns-index* = { 0 other other 00:00:00:00 0 }
tns-if-index = 0
tns-advertising-node-id = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:0+
tns-advertised-port-id = 0
tns-route-type = exterior
tns-pnni-scope = 0
tns-vp-capability = no
tns-metrics-tag = 0
tns-originate-advertisement = yes
active = no
```

PNNI-SUMMARY-ADDR

Description A profile that explicitly configures summary addresses.

Usage Following is a listing of the `pnni-summary-addr` profile with its default settings:

```
[in PNNI-SUMMARY-ADDR/""]
index-name* = ""
addr-index = { 1 internal-summary 00:00:00:00:00:00:00:00:00:00:00:00:00+
suppress = false
state = inactive
active = no
```

See Also `addr-index`

port-redirect-options

Description A subprofile that enables you to redirect certain packet types to a specified server. For example, you can redirect Hypertext Transfer Protocol (HTTP) traffic to a Web cache server on a local network. You can use the port redirection capability to redirect any TCP or UDP packet on the basis of its protocol and port information.

Usage Following is a listing of the `port-redirect-options` subprofile with its default settings:

```
[in CONNECTION/"":port-redirect-options]
protocol = none
port-number = 0
redirect-address = 0.0.0.0
```

ppp-answer

Description A subprofile that enables you to configure default settings for incoming PPP session requests. You set values in this subprofile to specify general values to be used as defaults for incoming PPP session requests that do not specify a different value in the caller's profile.

Usage Following is a listing of the `ppp-answer` subprofile with its default settings:

```
[in ANSWER-DEFAULTS:ppp-answer]
enabled = yes
receive-auth-mode = no-ppp-auth
bi-directional-auth = none
substitute-send-name = ""
disconnect-on-auth-timeout = yes
bridging-group = 0
link-compression = none
mru = 1524
lqm = no
lqm-minimum-period = 600
lqm-maximum-period = 600
mtu = 1524
max-pap-auth-retry = 0
```

pppoe-options

Description A subprofile of the `connection` and the `ethernet` profiles that enables a router module to process PPP over Ethernet (PPPoE) packets, as defined in RFC 2516

Usage Following are listings of both versions of the subprofile:

- Following is a listing of the `CONNECTION/"":pppoe-options` subprofile with its default settings:

```
[in CONNECTION/"":pppoe-options]
pppoe = no
bridge-non-pppoe = no
```

- Following is a listing of the `ETHERNET/{ any-shelf any-slot 0 }:pppoe-options` subprofile with its default settings:

```
[in ETHERNET/{ any-shelf any-slot 0 }:pppoe-options]
pppoe = no
bridge-non-pppoe = no
```

ppp-options

Description A subprofile that enables you to configure the Stinger unit to establish a connection that uses Point-to-Point Protocol (PPP) authentication.

Usage Following is a listing of the `ppp-options` subprofile with its default settings:

```
[in CONNECTION/"":ppp-options]
send-auth-mode = no-ppp-auth
ppp-circuit = none
ppp-circuit-name = ""
bi-directional-auth = none
send-password = ""
substitute-send-name = ""
recv-password = ""
substitute-recv-name = ""
link-compression = stac
mru = 1524
lqm = no
lqm-minimum-period = 600
lqm-maximum-period = 600
split-code-dot-user-enabled = no
mtu = 1524
```

preferred-source

Description A subprofile that enables you to configure the address of a device within the system. Calls that originate at the preferred source may be routed to the indexed destination.

Usage Following is a listing of the `preferred-source` subprofile with its default settings:

```
[in CALL-ROUTE/{ { { shelf-1 any-slot 0 } 0 } 0 }:preferred-source]
physical-address = { any-shelf any-slot 0 }
logical-item = 0
```

PRIVATE-ROUTE-TABLE

Description A profile that enables you to configure a private routing table. Specific `connection` or `radius` profiles can refer to a private routing table by name to have access to its routes.

Usage Following is a listing of the `private-route-table` profile with its default setting:

```
[in PRIVATE-ROUTE-TABLE/""]
name* = ""
route-description-list = [ { no 0.0.0.0/0 0.0.0.0 0.0.0.0 0 } { no 0.+
```

psd-frequency-level

Description A subprofile of the `clt-result` profile that contains the results of the PSD test for the copper loop test (CLT) module.

Usage Following is a sample listing of the subprofile:

```
[in CLT-RESULT:psd-frequency-level[1] (new)]
frequency = 0
level = 0
```

Q

q2931-options

Description A subprofile of `atm-if-sig-parms` containing Q.2931 parameters specifying the timers and retry values associated with the functionality of the Q.2931 signaling layer.

Usage Following is a listing of a `q2931-options` subprofile with its default settings:

```
[in ATM-IF-SIG-PARAMS/{ { any-shelf any-slot 0 } 0 }:q2931-options (new)]
ax-restart = 2
ax-statenq = 1
301-ms = 180000
303-ms = 4000
306-ms = 30000
308-ms = 30000
309-ms = 10000
310-ms = 10000
313-ms = 30000
316-ms = 120000
317-ms = 60000
322-ms = 4000
331-ms = 60000
333-ms = 10000
397-ms = 180000
398-ms = 4000
399-ms = 14000
aal-retry-ms = 10000
303-num-reties = 1
308-num-retries = 1
316-num-retries = 1
```

qsaal-options

Description A subprofile of `atm-if-sig-parms` that contains the Q.SAAL parameters that specify the timers and retry values associated with the functionality of the Q.SAAL layer.

Usage Following is a listing of the qsaal-options subprofile with its default values:

```
[in ATM-IF-SIG-PARAMS/{ { any-shelf any-slot 0 } 0 }:qsaal-options (new)]
window-size = 50
max-cc = 4
max-pd = 25
max-stat = 67
tcc-ms = 1000
tpoll-ms = 0
tkeepalive-ms = 0
tnoresponse-ms = 0
tidle-ms = 15000
poll-after-retransmission = no
repeat-ustat = no
ustat-rsp-to-poll = no
```

R

rad-acct-client

Description A subprofile that defines how the Stinger unit interacts as a client to RADIUS accounting servers.

Usage Following is a listing of the rad-acct-client subprofile with its default settings:

```
[in EXTERNAL-AUTH:rad-acct-client (new)]
acct-server-1 = 0.0.0.0
acct-server-2 = 0.0.0.0
acct-server-3 = 0.0.0.0
acct-port = 0
acct-src-port = 0
acct-key = ""
acct-timeout = 1
acct-sess-interval = 0
acct-id-base = acct-base-10
acct-reset-time = 0
acct-checkpoint = 0
acct-checkpoint-timer = all-sessions
acct-stop-only = yes
acct-limit-retry = 0
acct-drop-stop-on-auth-fail = no
acct-radius-compat = old-ascend
tunnel-accounting = no
```

See Also rad-auth-client, rad-auth-server, tac-auth-client, tacplus-auth-client

rad-auth-client

Description A subprofile that defines how the Stinger unit interacts as a client to RADIUS authentication servers.

Usage Following is a listing of the `rad-auth-client` subprofile with its default settings:

```
[in EXTERNAL-AUTH:rad-auth-client]
auth-server-1=0.0.0.0
auth-server-2=0.0.0.0
auth-server-3=0.0.0.0
auth-port=0
auth-src-port=0
auth-key=""
auth-timeout=0
auth-rsp-required=no
auth-sess-interval=0
auth-ts-secure=yes
auth-reset-time=0
auth-Send67=yes
auth-frm-adr-start=no
auth-id-fail-return-busy=no
auth-id-timeout-return-busy=no
auth-radius-compat=old-ascend
auth-keep-user-name=change-name
auth-realm-delimiters="@/\%"
id-auth-prefix=""
allow-auth-config-rqsts=yes
```

rad-auth-server

Description A subprofile that defines how Remote Authentication Dial-In User Service (RADIUS) clients interact with the Stinger unit. With the appropriate software, clients can issue RADIUS commands for session termination and filter changes.

Usage Following is a listing of a `rad-auth-server` subprofile with its default settings:

```
[in EXTERNAL-AUTH:rad-auth-server (new)]
auth-port = 0
auth-session-key = no
auth-attribute-type = rad-serv-attr-any
auth-client = [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 +
auth-netmask = [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 +
auth-key = [ "" "" "" "" "" "" "" "" "" ]
auth-radius-compat = old-ascend
```

See Also `rad-acct-client, rad-auth-client, tac-auth-client, tacplus-auth-client`

REDUNDANCY

Description A profile that enables you to configure redundant control modules.

Usage Following is a listing of the `redundancy` profile with its default settings:

```
[in REDUNDANCY (new)]
context = [ { } { } ]
primary-preference = no-preference
```

REDUNDANCY-STATS

Description A profile that contains the control module redundancy context statistics.

Usage Following is a listing of the read-only `redundancy-stats` profile:

```
[in REDUNDANCY-STATS]
context-stats = [ { monitoring secondary defer-to-running-primary primary +
```

relay-agent-information

Description A subprofile that enables you to configure DHCP option 82, the relay agent information option, by associating a unique identifier with a broadband device such as a DSL CPE or Integrated Access Device (IAD).

Usage Following is a listing of the `relay-agent-information` subprofile with its default settings:

```
[in IP-GLOBAL:bootp-relay:relay-agent-information]
circuit-id = { no 0.0.0.0 }
remote-id = { no 0.0.0.0 }
```

remote-id

Description A subprofile that enables you to configure settings for the remote identifier suboption of DHCP option 82.

Usage Following is a listing of the `remote-id` subprofile with its default settings:

```
[in IP-GLOBAL:bootp-relay:relay-agent-information:remote-id]
enable = no
if-ip = 0.0.0.0
```

remote-shelf-config

Description A subprofile for enabling and configuring each remote shelf in service on the host system.

Usage Following is a listing of the `remote-shelf-config` profile shown with default values for the remote shelf with shelf-ID 3:

```
[in REMOTE-SHELF-CONFIG/shelf-3]
remote-shelf-id* = shelf-3
enabled = no
name = ""
location = ""
remote-shelf-type = stngr-cascaded-mrt
```

Dependencies The `remote-shelf-config` profile can only be created if `shelf-controller-type` is set to `master`.

See Also `shelf-controller-type`

remote-shelf-stat

Description The `remote-shelf-stat` resides on the host for monitoring remote shelves. This profile is read-only and can not be deleted by a user.

Usage Following are the read-only fields in a profile for shelf 3:

```
[in REMOTE-SHELF-STAT/shelf-3]
remote-shelf-id* = shelf-3
host-port = { { any-shelf any-slot 0 } 0 }
remote-shelf-oper-state = remote-shelf-oper-state-up
name = MyShelfName
location = MyShelfLocation
internal-fan-unit-failed = no
external-fan-unit-failed = no
door-open = no
over-temperature = no
contact-closure = [ no no no no no no no ]
topology = { remote-shelf-cascade-port-none any-shelf any-shelf }
validation-status = { no 0 0 }
```

rlogin-options

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

route-description-list[*n*]

Description A subprofile that defines a route to be included in the private routing table. Specific `connection` or RADIUS profiles can refer to a private routing table by name to have access to its routes.

Usage Set values in this subprofile to configure one of up to 24 routes. Following is a listing of a `route-description-list` subprofile with its default settings:

```
[in PRIVATE-ROUTE-TABLE/"":route-description-list[1]]
enabled = no
dest-address = 0.0.0.0/0
netmask = 0.0.0.0
gateway-address = 0.0.0.0
metric = 0
```

route-filter

Description An `input-filter` or `output-filter` subprofile for defining a packet filter to be applied to RIP updates.

Usage Set values in this subprofile to configure one of up to 12 input or output route filters. Following are sample `route-filter` listings:

```
[in FILTER/"":input-filters[1]:route-filter]
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
route-mask = 0.0.0.0
route-address = 0.0.0.0
add-metric = 0
action = none
```

```
[in FILTER/"":output-filters[1]:route-filter]
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
route-mask = 0.0.0.0
route-address = 0.0.0.0
add-metric = 0
action = none
```

rxlink-config

Description A subprofile that enables you to configure the receiving link in an inverse multiplexing over ATM (IMA) connection.

Usage Following is a listing of an `rxlink-config` subprofile.

```
[in DS1-ATM/{ any-shelf any-slot 0 }:line-config:ima-option-config:
rxlink-config]
add-link-cond-time = 3
link-recovery-type = fast
rec-link-cond-time = 10
rx-lid-learning-time = 100
fault-clearing-type = auto
fault-clearing-time = 10
in-defect-int-time = 2500
out-defect-int-time = 10000
defect-ratio = 10
```

S

SDSL

Description A profile containing configuration settings for an SDSL line interface module (LIM).

Usage Following is a listing of the `sdsl` profile with its default settings:

```
[in SDSL/{ shelf-1 slot-1 0 }]
name=""
physical-address*={ shelf-1 slot-1 0 }
enabled=no
sparing-mode = inactive
line-config={ 0 0 static { any-shelf any-slot 0 } }
```

SDSL-STAT

Description A read-only profile that indicates the status of the SDSL line.

Usage Read-only. Following is a sample listing of the `sdsl-stat` profile:

```
[in SDSL-STAT/{ shelf-1 slot-13 20 }]
physical-address* = { shelf-1 slot-13 20 }
line-state = disabled
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-15-vci-32-127
vp-switching-vpi = 15
error-count = 0
physical-status = { 0 coe out-of-service 0 0 0 0 0 }
physical-statistic = { { 0 0 0 } no 0 0 passed 0 idle 0 }
```

security-properties

Description A subprofile that enables you to configure the security model and name for a view-based access control model (VACM).

Usage Following is a listing of the `security-properties` subprofile with its default settings:

```
[in VACM-SECURITY-GROUP/{ v1 "" }:security-properties (new)]
security-model = v1
security-name = ""
```

SERIAL

Description A profile that specifies physical interface settings for a system serial interface.

Usage Following is a listing of the `serial` profile with its default settings:

```
[in SERIAL/{ any-shelf any-slot 0 } (new)]
physical-address* = { any-shelf any-slot 0 }
term-rate = 9600-bps
flow-control = none
user-profile = admin
auto-logout = no
console-mode = on
```

session-info

Description A subprofile that enables you to configure settings for established sessions. Set values in this subprofile to affect default time-outs, or to set default filters for RADIUS-authenticated profiles.

Usage Following is a listing of the `session-info` subprofile with its default settings:

```
[in ANSWER-DEFAULTS:session-info]
call-filter = ""
data-filter = ""
filter-persistence = no
filter-required = no
idle-timer = 120
ts-idle-mode = no-idle
ts-idle-timer = 120
max-call-duration = 0
```

Dependencies If the same value is set in a `connection` profile, the connection-specific setting is used.

session-options

Description A subprofile that enables you to configure settings for an established session.

Usage Following is a listing of the `session-options` subprofile with its default settings:

```
[in CONNECTION/"":session-options]
call-filter = ""
data-filter = ""
filter-persistence = no
filter-required = no
idle-timer = 120
ts-idle-mode = no-idle
ts-idle-timer = 120
backup = ""
max-call-duration = 0
ses-rate-type = disabled
ses-rate-mode = autobaud
ses-sdsl-rate = 784000
ses-adsl-dmt-up-rate = 928000
ses-adsl-dmt-down-rate = 8000000
traffic-shaper = 16
```

shdsl

Description A profile that enables you to configure settings for SHDSL LIMs.

Usage Following is a listing of the `shdsl` profile with its default settings:

```
[in SHDSL/{ any-shelf any-slot 0 } (new)]
name = ""
physical-address* = { any-shelf any-slot 0 }
enabled = no
sparing-mode = inactive
ignore-lineup = system-defined
line-config = { 0 1 15 static { any-shelf any-slot 0 } coe no not-eligible +
```

SHDSL-STAT

Description A read-only profile that indicates the status of each SHDSL interface. The Stinger unit creates an `shdsl-stat` profile for each SHDSL interface in the system.

Usage Following is a listing of the `shdsl` profile with sample settings for an active line:

```
[in SHDSL-STAT/{ shelf-1 slot-2 10 }]
physical-address* = { shelf-1 slot-2 10 }
line-state = active
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
vpi-vci-range = vpi-0-15-vci-32-127
vp-switching-vpi = 15
physical-status = { 0 cpe port-up 1544000 A100 1 }
physical-statistic = { { 0 0 3 } yes 36 3 passed 10 0 in-sync 0 0 0 0 0 no+
```

slip-mode-configuration

Description *Not used.*

Location `TERMINAL-SERVER`

SLOT-ADMIN

Description A profile that enables you to specify the operational state of the module in a particular slot.

Usage Following is a listing of the `slot-admin` profile with its default settings:

```
[in SLOT-ADMIN/{ shelf-1 slot-1 0 }]
slot-address* = { shelf-1 slot-1 0 }
reqd-state = reqd-state-up
```

SLOT-INFO

Description A read-only profile that displays the software version, serial number, and other system information about the Stinger unit.

Usage Read-only. Following is a sample listing of the `slot-info` profile. Use the Get command to display the listing.

```
[in SLOT-INFO]
slot-address={ shelf-1 slot-7 0 }
serial-number=77777777
software-version=1
software-revision=2
software-level=E
software-release=""
hardware-level=0
```

SLOT-STATE

Description A read-only profile that indicates the current state of a slot module. The `slot-state` profile does not reside in nonvolatile RAM (NVRAM), so it does not persist across system resets or power cycles. Simple Network Management Protocol (SNMP) managers can read the `slot-state` profile.

Usage Following is a sample listing of the `slot-state` profile:

```
[in SLOT-STATE/{ shelf-1 slot-2 0 }]
slot-address*={ shelf-1 slot-2 0 }
current-state=oper-state-none
```

SLOT-STATIC-CONFIG

Description A profile that enables you to configure additional per-slot static parameters. There is one `slot-static-config` profile available for each line interface module (LIM) and control module slot. This profile can not be deleted by a user.

Usage Following is a listing of the `slot-static-config` profile with its default settings:

```
[in SLOT-STATIC-CONFIG/{ any-shelf any-slot 0 }]
name = ""
physical-address* = { any-shelf any-slot 0 }
atm-parameters = { low-priority }
interface-type = default
use-vp-switching-workaround = no
need-max-vpswitching-vpis = no
adsl-card-annex-type = annex-c
prof-update = no
vpi-vci-range = vpi-0-15-vci-32-127
allow-max-up-stream-bandwidth = 1000
allow-guaranteed-up-stream-bandwidth = 0
port-cac-enable = no
port-over-subscription = 10
```

```
slot-cac-enable = yes
slot-over-subscription = 10
```

SLOT-TYPE

Description A read-only profile that stores information about the type of slot card installed in each shelf/slot location. The `slot-type` profile resides in nonvolatile RAM (NVRAM) and persists over system resets.

Usage Read-only. Following is a sample listing of the `slot-type` profile.

```
[in SLOT-TYPE/{ shelf-1 slot-8 0 }]
slot-address*={ shelf-1 slot-8 0 }
slot-type=sdsl-card
```

slot-vpi-vci-range

Description *Deprecated and not used.*

Location ATM-CONFIG

See Also SLOT-STATIC-CONFIG

SNMP

Description A profile configures settings that determine Simple Network Management Protocol (SNMP) security, specify a contact and location, and control which hosts can access the Stinger unit by means of the SNMP manager utilities.

Usage Following is a listing of the `snmp` profile with its default settings:

```
[in SNMP (new)]
enabled = yes
read-community = *******
read-write-enabled = yes
read-write-community = ********
enforce-address-security = no
read-access-hosts = [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0 +
write-access-hosts = [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 +
contact = ""
location = ""
queue-depth = 0
csm-modem-diag = no
engine-id = 00:00:00:00:00:00:00:00:00:00:00:00
engine-boots = 0
snmp-message-type = v1-and-v3
security-level = none
enable-vacm = no
notification-log-age-out = 1440
bit-strings-allowed = yes
```

SNMP-MANAGER

Description A profile that enables you to configure the security hosts of the Simple Network Management Protocol (SNMP) manager.

Usage Following is a listing of the `snmp-manager` profile with its default settings:

```
[in SNMP-MANAGER/"" (new)]
name* = ""
active = no
write-access = no
snmp-message-type = v1-and-v3
```

SNMPV3-NOTIFICATION

Description A profile that, in conjunction with the `snmpv3-target-params` profile, configures the Stinger unit to perform the following tasks:

- Send SNMPv1 traps (Trap PDUs) or SNMPv2 Traps (Trap2 PDUs).
- Send traps to a specified IP address and port.
- Send Trap2 PDUs with different levels of security.
- Send Trap2 PDUs with different user names.

Usage Following is a listing of the `snmpv3-notification` profile with its default settings:

```
[in SNMPV3-NOTIFICATION/default]
name* = default
active-enabled = yes
tag = default
type = trap
```

See Also `SNMPV3-TARGET-PARAM`

SNMPV3-TARGET-PARAM

Description A profile that, in conjunction with the `snmpv3-notification` profile, configures the Stinger unit to perform the following tasks:

- Send SNMPv1 traps (Trap PDUs) or SNMPv2 traps (Trap2 PDUs).
- Send traps to a specified IP address and port.
- Send Trap2 PDUs with different levels of security.
- Send Trap2 PDUs with different usernames.

The SNMPv3 notification feature follows the specifications in RFC 2573.

Usage Following is a listing of the `snmpv3-target-params` profile with its default settings:

```
[in SNMPV3-TARGET-PARAM/default]
name* = default
active-enabled = yes
msg-proc-model = v1
security-model = v1
security-name =
security-level = none
```

See Also `SNMPV3-NOTIFICATION`

SNMPV3-USM-USER

Description A profile that permits you to create and edit `user` profiles for support of SNMPv3 user-based security model (USM) privacy.

Usage Following is a listing of the `snmpv3-usm-user` profile with its default settings:

```
[in SNMPV3-USM-USER/groupz]
name* =groupz
active-enabled = no
read-write-access = no
auth-protocol = md5-auth
priv-protocol = no-priv
auth-key =
priv-key =
public-str = ""
```

sntp-info

Description A subprofile that enables you to configure the use of the Simple Network Time Protocol (SNTP), which is described in RFC 1305.

Usage Following is a listing of the `sntp-info` subprofile with its default settings:

```
[in IP-GLOBAL:sntp-info]
enabled = sntp-disabled
GMT-offset = utc+0000
host = [ 0.0.0.0 0.0.0.0 0.0.0.0 ]
update-threshold = 10
```

SONET

Description A profile that enables you to configure settings for an OC12-ATM SONET interface.

Usage Following is a listing of the SONET profile with its default settings:

```
[in SONET/{ shelf-1 trunk-module-1 1 }]
name = 1:17:1
physical-address* = { shelf-1 trunk-module-1 1 }
enabled = no
ignore-lineup = system-defined
aps-config-name =
line-config = { 0 851 payload-atm no-loopback sonet no no vpi-0-255-vci-32-8191+
atm-config = { ast-x43 ast-x43 yes }
spare-physical-address = { any-shelf any-slot 0 }
sparing-mode = inactive
```

SONET-STAT

Description A read-only profile that indicates the state of the physical interface, error counters, and ATM framer status for each OC12 interface.

Usage Read-only. Following is a sample listing of a SONET-STAT profile:

```
[in SONET-STAT/{ shelf-1 trunk-module-1 1 }]
physical-address* = { shelf-1 trunk-module-1 1 }
line-state = active
line-rate = OC-12c
vpi-vci-range = vpi-0-255-vci-32-8191
vc-switching-vpi = ""
vcc-vpi = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ]
aps-config-name = ""
aps-channel-status = unknown
aps-channel-sd-condition = False
aps-channel-sf-condition = False
aps-channel-low-direction = low-none
aps-channel-recv-sd-count = 0
aps-channel-recv-sf-count = 0
aps-channel-recv-ais-count = 0
aps-channel-recv-rdi-count = 0
loss-of-signal = False
loss-of-frame = False
out-of-frame = False
section-state = sonet-section-active-no-defect
path-state = sonet-path-active-no-defect
ais-receive = False
yellow-receive = False
out-of-cell-delineation = False
loss-of-cell-delineation = False
aps-receive = False
rsop-bip-error-count = 46350
rlop-bip-error-count = 52896
rlop-febe-error-count = 0
```

```
rpop-bip-error-count = 0
rpop-febe-error-count = 0
racp-chcs-error-count = 0
racp-uchcs-error-count = 0
racp-rx-cell-count = 0
tacp-tx-cell-count = 0
frequency-justification-count = 0
HEC-cell-drop-counter = 0
FIFO-overflow-counter = 0
idle-cell-counter = 0
valid-cell-counter = 0
short-packet-counter = 0
bad-crc-packet-counter = 0
bad-seq-packet-counter = 0
valid-packet-counter = 0
time-elapsed = 743
valid-intervals = 79
performance-monitoring = { 646 664 0 46350 0 0 0 664 0 0 0 0 0 0 0 0 0 0 0 }
interval-performance-monitoring = [ { 876 901 0 7323 0 0 0 901 0 0 0 0 0 0 0 0 +
spare-physical-address = { any-shelf any-slot 0 }
sparing-state = sparing-none
sparing-change-reason = unknown
sparing-change-time = 0
sparing-change-counter = 0
```

spvc-address-prefix

Description A subprofile of the `atm-prefix` profile that contains the prefix portion of the SPVC target address.

Usage Following is a listing of the `spvc-address-prefix` subprofile with its default settings:

```
[in ATM-PREFIX/default:spvc-address-prefix]
length = 0
address = 00:00:00:00:00:00:00:00:00:00:00:00:00
```

svc-addr-prefix

Description A subprofile that contains the prefix portion of the SVC target address

Usage Following is a listing of the `svc-addr-prefix` subprofile with its default settings:

```
[in ATM-PREFIX/default:svc-addr-prefix]
length = 0
address = 00:00:00:00:00:00:00:00:00:00:00:00:00
```

See Also `pnni-node-prefix, spvc-addr-prefix`

SWITCH-CONFIG

Description A profile that enables you to configure an Asynchronous Transfer Mode (ATM) application-specific integrated circuit (ASIC). This profile is indexed by the module on which the ASIC is located (for example, `controller`, `tram-17`, or `tram-18`). The system creates a profile for the controller ASIC. If a trunk aggregation module (TRAM) is installed, it also creates a `switch-config` profile for those processors.

Usage Following is a listing of the `switch-config` profile with its default settings:

```
[in SWITCH-CONFIG/controller]
switch-name* = controller
atm-parameters = { [ { yes 1:17:1 { shelf-1 trunk-module-1 1 } yes no +
```

See Also `atm-parameters`

SYSTEM

Description A profile that enables you to configure systemwide settings for call management.

Usage Following is a listing of the `system` profile with its default settings:

```
[in SYSTEM]
installation-complete = yes
name = idslstg
system-rmt-mgmt = yes
use-trunk-groups = no
num-digits-trunk-groups = 1
idle-logout = 0
max-dialout-time = 20
parallel-dialing = 12
single-file-incoming = yes
exclusive-port-routing = no
high-ber-alarm-threshold = 10-**-3
high-ber-alarm = no
no-trunk-alarm = no
sessionid-base = 0
call-routing-sort-method = item-first
digital-call-routing-sort-method = slot-first
exact-match-call-routing = no
shelf-controller-type = standalone
master-shelf-controller = 1
new-nas-port-id-format = yes
perm-conn-upd-mode = all
userstat-format = "%i %l %s %r %d %a %u %c %t %n"
control-bus-type = dpram
boot-cm-version = 9.2-167.1
system-8k-clock = controller
ignore-lineup = no
nvram-was-rebuilt = no
connection-profile-auto-naming-convention = lower-interface-number-first
cac-preference = connection-time
```

```
traffic-shapers = [ { no 0 0 2 no 1 } { no 0 0 2 no 2 } { no 0 0 2 no 3 } { +
validation-enable = yes
user-second-level-authentication = none
maximum-login-attempts = 3
audit-user-profiles = yes
```

SYSTEM-INTEGRITY

Description A profile for internal use only.

T

T1-STAT

Description A read-only profile that displays information about the state of a T1 line and its channels.

Usage Read-only. Following is a sample listing of a `t1-stat` profile:

```
[in T1-STAT/{ shelf-1 slot-1 1 }]
physical-address* = { shelf-1 slot-1 1 }
line-state = disabled
channel-state = [ disabled disabled disabled disabled disabled disabled+
error-count = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 ]
loss-of-carrier = False
loss-of-sync = False
ais-receive = False
yellow-receive = False
ber-receive = False
carrier-established = False
network-loopback = False
```

table-config

Description A subprofile that enables you to configure the Domain Name System (DNS) local table, storing up to eight host names and initial IP addresses.

Usage Following is a sample listing of the `table-config` subprofile:

```
[in IP-GLOBAL:dns-local-table:table-config[1]]
host-name = ""
ip-address = 0.0.0.0
```

tac-auth-client

Description A subprofile that enables you to configure the way in which a Stinger unit interacts as a client of Terminal Access Controller Access Control System (TACACS) protocol authentication servers.

Usage Following is a listing of the `tac-auth-client` subprofile with its default settings:

```
[in EXTERNAL-AUTH:tac-auth-client]
auth-server-1 = 0.0.0.0
auth-server-2 = 0.0.0.0
auth-server-3 = 0.0.0.0
auth-port = 0
auth-src-port = 0
auth-key = ""
auth-timeout = 0
```

tacplus-acct-client

Description A subprofile that defines how the Stinger unit interacts as a client of TACACS+ accounting servers.

Usage Following is a listing of a `tacplus-acct-client` subprofile with its default settings:

```
[in EXTERNAL-AUTH:tacplus-acct-client (new)]
acct-server-1 = 0.0.0.0
acct-server-2 = 0.0.0.0
acct-server-3 = 0.0.0.0
acct-port = 0
acct-src-port = 0
acct-key = ""
```

tacplus-auth-client

Description A subprofile that defines how the Stinger unit interacts as a client of TACACS+ authentication servers.

Usage Following is a listing of a `tacplus-auth-client` subprofile with its default settings:

```
[in EXTERNAL-AUTH:tacplus-auth-client (new)]
auth-server-1 = 0.0.0.0
auth-server-2 = 0.0.0.0
auth-server-3 = 0.0.0.0
auth-port = 0
auth-src-port = 0
auth-key = ""
auth-timeout-time = 0
auth-retries = 0
```

tcp-clear-answer

Description *Not supported.* A subprofile that enables TCP-Clear sessions.

Usage Following is a listing of the `tcp-clear-answer` subprofile, which is not supported in Stinger units.

```
[in ANSWER-DEFAULTS:tcp-clear-answer]
enabled = yes
```

tcp-clear-options

Description *Not supported.* A subprofile that enables you to configure default settings for a TCP-Clear session.

Usage Following is a listing of the `tcp-clear-options` subprofile, which is not supported in Stinger units.

```
[in CONNECTION/"":tcp-clear-options (new)]
host = ""
port = 0
host2 = ""
port2 = 0
host3 = ""
port3 = 0
host4 = ""
port4 = 0
detect-end-of-packet = no
end-of-packet-pattern = ""
flush-length = 256
flush-time = 20
```

tdr-distance-level

Description A subprofile that contains distance and level data pairs for the time-domain reflectometry (TDR) test of the copper loop test (CLT) module.

Usage Following is a listing of the subprofile with its defaults.

```
[in CLT-RESULT:tdr-distance-level[1]]
distance = 0
level = 0
```

telco-options

Description A subprofile that enables you to configure options negotiated with the telephone company carrier.

Usage Following is a listing of the `telco-options` subprofile with its default settings:

```
[in CONNECTION/"":telco-options (new)]
answer-originate = ans-and-orig
callback = no
call-type = ft1
nailed-groups = 1
nailed-up-group = 1
ft1-caller = no
force-56kbps = no
data-service = 56k-clear
call-by-call = 0
billing-number = ""
transit-number = ""
expect-callback = no
delay-callback = 0
nas-port-type = any
```

telnet-options

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

terminal-mode-configuration

Description *Not used.*

Location `TERMINAL-SERVER`

TERMINAL-SERVER

Description *Not used.*

Location `TERMINAL-SERVER`

THERMAL

Description *Not supported.* A profile that enables you to specify temperature thresholds for the built-in temperature sensors in the Stinger control module.

Usage Following is a listing of the `thermal` profile with its default settings:

```
[in THERMAL]
bottom-low-temperature-threshold = 0
bottom-high-temperature-threshold = 60
top-low-temperature-threshold = 0
top-high-temperature-threshold = 60
```

Dependencies Temperature sensors are available only in version 3 and higher of the control module.

THRESH-HDSL2-SHDSL

Description *Not supported.*

thresh-profiles

Description *Not supported.*

Location HDSL2

time

Description A subprofile that specifies the current hour, minute, and second.

Usage Following is a sample listing of the time subprofile:

```
[in TIMEDATE:time]
hour = 12
minute = 37
second = 33
```

Note As an alternative, you can use the set command—for example, set time hour=16. You can also use the date command to set the current hour, minute, and second.

TIMEDATE

Description A profile that shows the current system time and date.

Usage Following is a sample listing of the timedate profile:

```
[in TIMEDATE]
time = { 12 37 33 }
date = { Friday March 29 2002 }
```

tns-index

Description A subprofile that specifies a complex index value identifying the transit network selection (TNS). The index elements are defined in the subprofile.

Usage Following is a listing of the tns-index subprofile:

```
[in PNNI-ROUTE-TNS/{ 0 other other "" 0 }:tns-index ]
node-index = 0
route-tns-type = other
route-tns-plan = other
route-tns-id = ""
route-tns-index = 0
```

tos-filter

Description An `input-filter` or `output-filter` subprofile for defining a type of service (ToS) filter.

Usage Set values in this subprofile to configure one of up to 12 input or output ToS filters. Following are sample `tos-filter` listings:

```
[in FILTER/"":input-filters[1]:tos-filter]
protocol = 0
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
dest-address-mask = 0.0.0.0
dest-address = 0.0.0.0
Src-Port-Cmp = none
source-port = 0
Dst-Port-Cmp = none
dest-port = 0
precedence = 000
type-of-service = normal
marking-type = precedence-tos
dscp = 00
```

```
[in FILTER/"":output-filters[1]:tos-filter]
protocol = 0
source-address-mask = 0.0.0.0
source-address = 0.0.0.0
dest-address-mask = 0.0.0.0
dest-address = 0.0.0.0
Src-Port-Cmp = none
source-port = 0
Dst-Port-Cmp = none
dest-port = 0
precedence = 000
type-of-service = normal
marking-type = precedence-tos
dscp = 00
```

tos-options

Description A subprofile that enables you to configure type-of-service (TOS) settings for IP routed WAN connections. Stinger units do not implement priority queuing, but they do set information that can be used by other routers to prioritize and select links for particular data streams. You set values in this subprofile to configure the Stinger unit to set quality of service (QoS) priority bits and TOS classes of service on behalf of customer applications.

Usage Following is a listing of the `tos-options` subprofile with its default settings:

```
[in CONNECTION/"":ip-options:tos-options]
active = no
precedence = 000
type-of-service = normal
apply-to = incoming
marking-type = precedence-tos
dscp = 00
```

See Also `ip-options`

traffic-shapers

Description A subprofile that enables you to configure the bandwidth of virtual circuits.

Usage Following is a listing of a `traffic-shapers` subprofile with its default settings:

```
[in ATM-CONFIG:traffic-shapers[1]]
enabled = no
bit-rate = 1000
peak-rate = 1000
max-burst-size = 2
aggregate = no
priority-number = 1
```

transceiver-info

Description A read-only subprofile that identifies the interface and the type of transceiver in the trunk card.

Usage Following is a listing of the `transceiver-info` profile:

```
[in TRUNK-DAUGHTER-DEV/{ shelf-1 trunk-module-1 1 }:transceiver-info]
reach-type = long-reach
interface-type = interface-oc12
```

TRAP

Description A profile that enables you to configure the way in which the Stinger unit traps events. A trap is a mechanism in Simple Network Management Protocol (SNMP) for reporting system change in real time. To report system change, the Stinger unit sends a traps-PDU (protocol data unit) to the SNMP manager. (For the most up-to-date information about events, see the Ascend Enterprise MIB.)

Usage Following is a listing of the `trap` profile with its default settings:

```
[in TRAP/"" (new)]
host-name* = ""
active-enabled = yes
community-name = ""
host-address = 0.0.0.0
host-port = 162
```

```
inform-time-out = 1500
inform-retry-count = 4
notify-tag-list = default
target-params-name = default
notification-log-enable = no
notification-log-limit = 50
trap-sequencing = no
heart-beat-trap-interval = 5
trap-optimization-enabled = no
alarm-enabled = yes
security-enabled = no
port-enabled = no
slot-enabled = no
coldstart-enabled = yes
warmstart-enabled = yes
linkdown-enabled = yes
linkup-enabled = yes
ascend-enabled = yes
console-enabled = yes
use-exceeded-enabled = yes
password-enabled = yes
fr-linkup-enabled = yes
fr-linkdown-enabled = yes
event-overwrite-enabled = yes
radius-change-enabled = yes
mcast-monitor-enabled = yes
lan-modem-enabled = yes
slot-profile-change-enabled = yes
power-supply-enabled = yes
authentication-enabled = yes
config-change-enabled = yes
sys-clock-drift-enabled = yes
suspect-access-resource-enabled = yes
ospf-enabled = no
ospf-if-config-error-enabled = no
ospf-if-auth-failure-enabled = no
ospf-if-state-change-enabled = no
ospf-if-rx-bad-packet = no
ospf-tx-retransmit-enabled = no
ospf-nbr-state-change-enabled = no
ospf-virt-if-config-error-enabled = no
ospf-virt-if-auth-failure-enabled = no
ospf-virt-if-state-change-enabled = no
ospf-virt-if-rx-bad-packet = no
ospf-virt-if-tx-retransmit-enabled = no
ospf-virt-nbr-state-change-enabled = no
ospf-originateLsa-enabled = no
ospf-maxAgeLsa-enabled = no
ospf-lsdb-overflow-enabled = no
ospf-approaching-overflow-enabled = no
watchdog-warning-enabled = yes
controller-switchover-enabled = no
```

```
call-log-serv-change-enabled = yes
wan-line-state-change-enabled = yes
call-log-dropped-pkt-enabled = yes
lim-sparing-enabled = no
interface-sparing-enabled = no
secondary-controller-state-change-enabled = no
pctfi-trunk-status-change-enabled = yes
no-resource-available-enabled = yes
dsl-thresh-trap-enabled = no
atm-pvc-failure-trap-enabled = no
atm-ima-alarm-trap-enabled = no
ascend-link-down-trap-enabled = no
ascend-link-up-trap-enabled = no
snmp-illegal-access-attempt = no
hdsl2-shdsl-threshold-traps-enabled = yes
clock-change-trap-enabled = no
oam-timeout-trap-enabled = no
ascend-adsl-trap-enabled = no
ascend-multicast-link-trap-enabled = no
ascend-cac-fail-trap-enabled = no
spvc-target-cac-fail-trap-enabled = yes
heart-beat-trap-enabled = no
ascend-flash-card-trap-enabled = yes
ascend-sw-mismatch-trap-enabled = no
ascend-hashcode-mismatch-trap-enabled = no
remote-shelf-enabled = yes
```

tree-properties

Description A subprofile that enables you to configure the identifiers of a view in a view-based access control model (VACM).

Usage Following is a listing of the `tree-view-properties` subprofile with its default settings:

```
[in VACM-VIEW-TREE/{ "" "" }:tree-properties (new)]
view-name = ""
view-tree-oid = ""
```

See Also `trunk-cac-config[n]`

trunk-cac-config

Description A subprofile of the `high-speed-slot` profile that the system creates for each trunk port.

Usage Following is a listing of a trunk-cac subprofile with its default settings:

```
[in HIGH-SPEED-SLOT-STATIC-CONFIG/{ shelf-1 trunk-module-1 1 }:trunk-cac-
config]
enable = yes
port-num = 1:17:1
line-rate = 148598
over-subscription = 10
```

Dependencies This parameter was previously located in the atm-config profile. Its use in that location has been deprecated.

If a user has already set these parameters under a previous release in the atm-config profile, the parameters are copied into the corresponding high-speed-slot-static-config profile. The parameters are now invisible in the atm-config profile unless allow-debug is set to yes.

trunk-cac-config[n]

Description *Deprecated and not used.*

Location ATM-CONFIG:trunk-cac-config

See Also HIGH-SPEED-SLOT-STATIC-CONFIG

TRUNK-DAUGHTER-DEV

Description A profile that enables you to configure a trunk daughter device.

Usage Following is a listing of the trunk-daughter-dev profile:

```
[in TRUNK-DAUGHTER-DEV/{ shelf-1 trunk-module-2 1 }]
device-address* = { shelf-1 trunk-module-2 1 }
device-state = trunk-daughter-oper-state-up
trunk-daughter-type = trunk-daughter-oc3-quad
previous-trunk-daughter-type = trunk-daughter-none
transceiver-info = { long-reach interface-oc12 }
```

tunnel-options

Description A subprofile configures virtual private network (VPN) connectivity using Layer 2 Tunneling Protocol (L2TP) or Ascend Tunnel Management Protocol (ATMP) tunneling.

Usage Following is a listing of the `tunnel-options` subprofile with its default settings:

```
[in CONNECTION/"":tunnel-options]
profile-type = disabled
tunneling-protocol = atmp-protocol
max-tunnels = 0
atmp-ha-rip = rip-off
primary-tunnel-server = ""
secondary-tunnel-server = ""
udp-port = 5150
password = ""
home-network-name = ""
client-auth-id = ""
server-auth-id = ""
vrouter = ""
assignment-id = ""
```

Dependencies RADIUS-authenticated PPP sessions can use some L2TP tunnel features, such as tunnel tags, that are not supported in the local command-line interface.

TUNNEL-SERVER

Description A profile that enables you to configure server-level tunnel authentication and other options specific to a Layer 2 Tunneling Protocol (L2TP) network server (LNS).

Usage Following is a listing of the `tunnel-server` profile with its default settings:

```
[in TUNNEL-SERVER/""]
server-endpoint* = ""
enabled = yes
shared-secret = ""
client-auth-id = ""
server-auth-id = ""
dialout-options = { no "" "" "" "" no no }
```

See Also `dialout-options`

txlink-config

Description A subprofile that enables you to configure the transmitting link in an inverse multiplexing over ATM (IMA) connection.

Usage Following is a sample listing of the txlink-config subprofile:

```
[in DS1-ATM/{ shelf-1 any-slot 0 }:line-config:ima-option-config:txlink-
confi+
ne-tx-lid = 0
add-link-cond-time = 3
link-recovery-type = fast
fault-clearing-type = auto
fault-clearing-time = 10
priority = 0
```

See Also ima-option-config, line-config

U

USER

Description A profile that defines a name, a password, privileges, and default displays for user login accounts.

Usage Following is a listing of a user profile with its default settings:

```
[in USER/default]
name*=default
password=""
active-enabled=yes
enforce-password-check = no
first-level-user = ""
login-level = first-level
allow-termserv=no
allow-system=no
allow-diagnostic=no
allow-update=no
allow-password=no
allow-code=no
idle-logout=0
prompt="admin> "
default-status=no
top-status=general-info
bottom-status=log-window
left-status=connection-list
use-scroll-regions=yes
log-display-level=none
screen-length=24
status-length=18
user-group = ""
last-login-date = { Wednesday November 2003 12 }
user-acct-expiration-date = { Saturday November 2006 11 }
user-passwd-expiration-date = { Sunday January 2004 11 }
```

user-group

Description The `user-group` profile enables you to define command access for each user you specify. You can specify access settings and a list of up to 512 commands that users in the command user group have permission to use.

Usage Following are the parameters, shown with their default settings:

```
[in USER-GROUP/"" (new)]
name* = ""
use-group-permissions = no
allow-termserv = no
allow-system = no
allow-diagnostic = no
allow-update = no
allow-password = no
allow-code = no
allow-debug = no
exclude-listed-commands = no
command = [ "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" ""+
profile = [ "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" ""+
```

usrrad-options

Description A subprofile that enables you to configure connection-specific RADIUS accounting options.

Usage Following is a listing of the `usrrad-options` subprofile with its default settings:

```
[in CONNECTION/tim:usrRad-options]
acct-type=global
acct-host=0.0.0.0
acct-port=1646
acct-key=""
acct-timeout=1
acct-id-base=acct-base-10
```

Dependencies RADIUS accounting must be configured in the `rad-acct-client` subprofile of the `external-auth` profile.

V

VACM-ACCESS

Description A profile that enables you to configure the view-based access control model (VACM), specifying view names for different kinds of access, such as read, write, notify.

Usage Following is a listing of the `vacm-access` profile with its default settings:

```
[in VACM-ACCESS/{ "" "" v1 no+ } (new)]
access-properties* = { "" "" v1 no+ }
active = no
match-method = exact-match
read-view-name = ""
write-view-name = ""
notify-view-name = ""
```

VACM-SECURITY-GROUP

Description A profile that enables you to configure the mapping of a security name and security model in an incoming or outgoing message to a view-based access control model (VACM) security group.

Usage Following is a listing of the `vacm-security-group` profile with its default settings:

```
[in VACM-SECURITY-GROUP/{ v1 "" } (new)]
security-properties* = { v1 "" }
active = no
group-name = ""
```

VACM-VIEW-TREE

Description A profile that enables you to configure the views of the view-based access control model (VACM).

Usage Following is a listing of the `vacm-view-tree` profile with its default settings:

```
[in VACM-VIEW-TREE/{ "" "" } (new)]
tree-properties* = { "" "" }
active = no
tree-oid-mask = ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff
tree-type = included
```

validation-status

Description Validation status of the remote shelf.

Usage Following are the read-only fields in a profile for shelf 3:

```
[in REMOTE-SHELF-STAT/shelf-3:validation-status]
id-valid = disabled
validation-id-setting = 0
validation-id = 0
```

vcc-ident

Description A read-only subprofile that indicates values for a virtual channel connection (VCC) on an Asynchronous Transfer Mode (ATM) link.

Usage Read-only. Following is a listing of the `vcc-ident` subprofile with sample

```
[in ATMVCC-STAT/{ shelf-1 slot-1 3 0 41 1 }:vcc-ident]
shelf-number = shelf-1
slot-number = slot-1
port = 3
vpi = 0
vci = 41
nailed-group = 1
```

vcc-members

Description A read-only subprofile that indicates the values for the virtual channel connections (VCCs) on an Asynchronous Transfer Mode (ATM) link.

Usage Read-only. Following is a sample listing of the `vcc-members` subprofile:

```
[in ATMPVC-STAT/unit1:vcc-members]
vcc-members[1]={ shelf-1 slot-2 14 0 37 }
vcc-members[2]={ shelf-1 trunk-module-2 2 0 10
```

vcc-members[n]

Description A read-only subprofile of the `atmpvc-stat:vcc-members` subprofile that. contains values for a virtual channel connection (VCC) on an Asynchronous Transfer Mode (ATM) link.

Following is a sample listing of the `vcc-members` *n* subprofile:

```
[in ATMPVC-STAT/unit1:vcc-members[1]]
shelf-number = shelf-1
slot-number = trunk-module-1
port = 1
vpi = 0
vci = 120
nailed-group = 801
```

VLAN-ETHERNET

Description A profile that enables you to specify the configuration of IEEE 802.1Q virtual local area networks (VLANs).

Usage Following is a listing of the `vlan-ethernet` profile with its default settings:

```
[in VLAN-ETHERNET/{ { any-shelf any-slot 0 } 0 } (new)]
interface-address* = { { any-shelf any-slot 0 } 0 }
vlan-enabled = no
vlan-id = 0
enabled = no
filter-name = ""
pppoe-options = { no no }
bridging-options = { 0 no no }
```

VROUTER

Description A profile that defines a virtual router (VRouter).

Usage Following is a listing of the `vrouter` profile with its default settings:

```
[in VROUTER/""]
name* = ""
active = yes
vrouter-ip-addr = 0.0.0.0
pool-base-address = [ 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0+
assign-count = [ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 +
pool-name = [ "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "" "+
pool-summary = no
pool-chaining = no
share-global-pool = yes
rip-policy = Poison-Rvrs
summarize-rip-routes = no
rip-trigger = yes
domain-name = ""
sec-domain-name = ""
dns-primary-server = 0.0.0.0
dns-secondary-server = 0.0.0.0
client-primary-dns-server = 0.0.0.0
client-secondary-dns-server = 0.0.0.0
allow-as-client-dns-info = True
```

W

WATCHDOG-CONFIG

Description A profile that enables you to specify Simple Network Management Protocol (SNMP) traps (notifications) for specific conditions.

Usage Following is a listing of the `watchdog-config` profile with sample settings:

```
[in WATCHDOG-CONFIG/{ fan fantray 1 }]
watchdog-index* = { fan fantray 1 }
watchdog-trap-enable = yes
watchdog-name = "Stinger 10 Fan"
system-created-slave-profile = no
```

watchdog-index*

Description A complex field that contains the watchdog type, location ID, and unit number of a Simple Network Management Protocol (SNMP) *watchdog*. A watchdog is a software routine that monitors the status of a particular aspect of a Stinger unit—for example, the temperature of a module.

Usage Following is a listing of the `watchdog-index` field with its default settings:

```
[in WATCHDOG-CONFIG/{  none 0 }:watchdog-index (new)]
watchdog-type = ( bad value )
location-id = none
unit = 0
```

X

XDSL-SLOT-CONFIG

Description A profile that enables you to configure an *x*DSL slot.

Usage Following is a listing of the `xdsl-slot-config` profile with its default settings:

```
[in XDSL-SLOT-CONFIG/{ any-shelf any-slot 0 }]
slot-address* = { any-shelf any-slot 0 }
sealing-current-on = no
```

Stinger Parameter Reference

3

Numeric

32-dmt-aslam

Description *Deprecated and not used.*

Location LOAD-SELECT

40-dmt-adsl

Description *Deprecated and not used.*

Location LOAD-SELECT

48-dmt-adsl

Description Specifies whether code images for ADSL 48-port line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- auto—Causes the system to load images for ADSL 48-port LIMs that are installed in the Stinger unit and to skip images for modules that are not installed. This is the default.
- load—Causes the system to load the image, even if no ADSL 48-port LIMs are installed.
- skip—Causes the system to skip the image, even if an ADSL 48-port LIM is installed.

Note A module is considered present in the system if a slot-type profile exists for that module type. The system creates a slot-type profile when it first detects the presence of a particular module. The system does not delete the profile unless you use the slot –r command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use slot –r to remove slot-type profiles for modules that are no longer installed in the system.

Example `set 48-dmt-adsl = auto`

Location LOAD-SELECT

72-ct-dmt-adsl

Description Specifies whether code images for ADSL 72-port Annex A line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- auto—Causes the system to load images for ADSL 72-port Annex A LIMs that are installed in the Stinger unit and to skip images for modules that are not installed. This is the default.
- load—Causes the system to load the image, even if no ADSL 72-port Annex A LIMs are installed.

- `skip`—Causes the system to skip the image, even if an ADSL 72-port Annex A LIM is installed.

Note A module is considered present in the system if a `slot-type` profile exists for that module type. The system creates a `slot-type` profile when it first detects the presence of a particular module. The system does not delete the profile unless you use the `slot –r` command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use `slot –r` to remove `slot-type` profiles for modules that are no longer installed in the system.

Example `set 72-ct-dmt-adsl = auto`

Location `LOAD-SELECT`

72-gs-dmt-adsl

Description Specifies whether code images for ADSL 72-port Globespan line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Causes the system to load images for ADSL 72-port Globespan LIMs that are installed in the Stinger unit and to skip images for modules that are not installed. This is the default.
- `load`—Causes the system to load the image, even if no ADSL 72-port Globespan LIMs are installed.
- `skip`—Causes the system to skip the image, even if an ADSL 72-port Globespan LIM is installed.

Note A module is considered present in the system if a `slot-type` profile exists for that module type. The system creates a `slot-type` profile when it first detects the presence of a particular module. The system does not delete the profile unless you use the `slot –r` command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use `slot –r` to remove `slot-type` profiles for modules that are no longer installed in the system.

Example `set 72-gs-dmt-adsl = auto`

Location `LOAD-SELECT`

72-shdsl

Description Specifies whether code images for SHDSL 72-port line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Causes the system to load images for SHDSL 72-port LIMs that are installed in the Stinger unit and to skip images for modules that are not installed. This is the default.
- `load`—Causes the system to load the image, even if no SHDSL 72-port LIMs are installed.

- skip—Causes the system to skip the image, even if an SHDSL 72-port LIM is installed.

Note A module is considered present in the system if a slot-type profile exists for that module type. The system creates a slot-type profile when it first detects the presence of a particular module. The system does not delete the profile unless you use the slot –r command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use slot –r to remove slot-type profiles for modules that are no longer installed in the system.

Example `set 72-shdsl = auto`

Location LOAD-SELECT

A

aal5-encaps

Description Specifies the type of data encapsulation used over the ATM adaptation layer 5 (AAL5) service-specific convergence Sublayer (SSCS).

Usage Specify one of the following values:

- llc-encapsulation (the default)
- multi-frame-relay-sscs
- other-encapsulation
- vcmux-bridged-8023
- vcmux-bridged-8025
- vcmux-bridged-8026
- vcmux-lanemul-8023
- vcmux-lanemul-8025
- vcmux-routed:
- unknown-encapsulation

Example `set aal5-encaps = vcmux-bridged-8023`

Location ATM-VCL-CONFIG

aal-enabled

Description Enables ATM adaptation layer (AAL) options.

Usage Specify one of the following values:

- no—Disables AAL options. This is the default value.
- yes—Enables AAL options

Example `set aal-enabled = yes`

Location CONNECTION:atm-aal-options

aal-type

Description The ATM adaptation layer (AAL) type.

Usage Set one of the following values:

- `aal0`—Sets AAL0 type of layer.
- `aal5`—Sets AAL5 type of layer.
- `unspecified`—Does not specify a type of AAL.

Example `set aal-type = aal5`

Location `ATM-QOS`

abstime

Description Read-only. Indicates the absolute time, used as the index for error logging.

Usage Read-only value with the range 0 to 4294967295.

Example `abstime = 380038282`

Location `ERROR`

access-loop

Description Specifies the copper loop for a particular LIM port to be accessed in a copper loop test (CLT).

Usage Specify either 1 or 2. The default is 1.

Example `set access-loop = 2`

Location `CLT-MS-ACCESS`

access-mode

Description Specifies the type of connection used in the configuration of the copper loop for a copper loop test (CLT).

Usage Valid values are as follows:

- `bridged` —Copper loop is connected to the test head and the corresponding port of the spare LIM.
- `looking-out`—Copper loop is connected only to the test head. This is the default.

Example `set access-mode = looking-out`

Location `CLT-MS-ACCESS`

access-port

Description Specifies the port number of the copper loop to be tested.

Usage Enter the port number of the copper loop to be tested. The default is 1.

Example `set access-port = 2`

Location `CLT-MS-ACCESS`

access-result

Description Indicates the current state of a copper loop test (CLT).

Usage Valid values are as follows:

- `idle` —Test head is inactive, and no copper loops are connected. This is the default
- `access-activated`—Test head is active, and a copper loop is connected as specified.

Example `set access-result = idle`

Location `CLT-MS-ACCESS`

access-slot

Description Specifies the slot number of the line interface module (LIM) containing the copper loop to be tested.

Usage Enter the slot number, preceded by `slot-`, of the LIM. The default is `slot-16`.

Specify one of the following:

- `any-slot`—Special value used to specify any slot.
- `slot-1`—Slot 1.
- `slot-2`—Slot 2.
- `slot-3`—Slot 3.
- `slot-4`—Slot 4.
- `slot-5`—Slot 5.
- `slot-6`—Slot 6.
- `slot-7`—Slot 7.
- `slot-10`—Slot 10.
- `slot-11`—Slot 11.
- `slot-12`—Slot 12.
- `slot-13`—Slot 14.
- `slot-14`—Slot 14.
- `slot-15`—Slot 15.
- `slot-16`—Slot 16.

Example `set access-slot = slot-2`

Location `CLT-MS-ACCESS`

access-terminal

Description Specifies the connection point of the copper loop used in the configuration of the copper loop for a copper loop test (CLT).

Usage Valid values are as follows:

- `internal-tester-terminal`—Copper loop is connected to the internal test head of the CLT module. This is the default.
- `external-tester-terminal`—Copper loop is connected to the external test terminals of the CLT module or path selector module (PSM).
- `auxiliary-tester-terminal`—Copper loop is connected to the auxiliary test terminals of the CLT module or PSM.
- `external-loop`—Internal test head of the CLT module is connected to external terminals.

Example `set access-terminal = external-tester-terminal`

Location `CLT-MS-ACCESS`

acct-checkpoint

Description Specifies the interval (in seconds) at which to send checkpoint packets to the RADIUS daemon.

Usage Specify an integer from 0 to 60. The default is 0 (zero).

Example `set acct-checkpoint = 30`

Location `EXTERNAL-AUTH:rad-acct-client`

acct-checkpoint-timer

Description Specifies whether to send RADIUS checkpoint accounting packets on a per-session basis.

Usage Specify one of the following settings:

- `per-session`—Specifies that checkpoint packets are sent on a per-session basis at the interval specified by the `acct-checkpoint` parameter.
- `all-sessions` (the default)—Specifies that checkpoint packets are all sent at the same time.

Example `set acct-checkpoint-timer = per-session`

Dependencies For `acct-checkpoint-timer` to apply, you must set `acct-type` to `radius`.

Location `EXTERNAL-AUTH:rad-acct-client`

acct-drop-stop-on-auth-fail

Description Specifies whether RADIUS accounting stop packets are dropped for connections that fail authentication.

Usage Valid values are as follows:

- `yes`—Specifies that RADIUS Accounting Stop packets are dropped for connections that fail authentication.
- `no`—Specifies that RADIUS Accounting Stop packets are sent for connections that fail authentication. This is the default.

Example `set acct-drop-stop-on-auth-fail = yes`

Location `EXTERNAL-AUTH:rad-acct-client`

acct-host

Description Specifies a RADIUS accounting server for the Stinger unit to use for the connection.

Usage Enter the IP address of a RADIUS accounting server. The default is 0.0.0.0, which causes the Stinger unit to look for an accounting server at the address specified by the `external-auth` profile.

Example `set acct-host = 10.9.8.2/24`

Location `CONNECTION:usrrad-options`

acct-id-base

Description Specifies whether the numeric base of the RADIUS `Acct-Session-ID` attribute is 10 or 16. You can set `acct-id-base` globally and for each connection.

Usage Valid values are as follows:

- `acct-base-10`—Specifies a decimal base. This is the default.
- `acct-base-16`—Specifies a hexadecimal base.

The value you specify controls how the Stinger system presents the `Acct-Session-ID` attribute to the RADIUS accounting server.

Note The `Acct-Session-ID` attribute is defined in section 5.5 of the RADIUS accounting specification.

Example `set acct-id-base = acct-base-16`

Dependencies Consider the following:

- If `acct-type` does not specify `radius`, the `acct-id-base` value does not apply.
- Changing the value of `acct-id-base` while accounting sessions are active results in inconsistent reporting between the Start and Stop records.

Location `CONNECTION:usrrad-options`
`EXTERNAL-AUTH:rad-acct-client`

acct-key

Description Specifies a RADIUS shared secret. A shared secret acts as a password between the Stinger unit and the accounting server.

Usage Specify the text of the shared secret. The value you specify must match the value in the RADIUS `clients` file. If you specify a null value, the system logs the following warning:

```
warning: acct-key is empty (bad for security)
```

Example `set acct-key = mypw`

Dependencies If the `acct-type` parameter value does not specify `radius`, `acct-key` does not apply.

Location `CONNECTION:usrrad-options`
`EXTERNAL-AUTH:rad-acct-client`

acct-limit-retry

Description Specifies the maximum number of times the Stinger system tries to send accounting packets.

When the Stinger unit is configured for RADIUS accounting, it sends accounting Start and Stop packets to the RADIUS server to record connections. If the server does not acknowledge a packet within the number of seconds you specify for `acct-timeout`, the Stinger unit tries again, resending the packet until the server responds, or dropping the packet if the queue of packets to be resent is full. You can limit the number of retries by setting a maximum.

Usage To set the maximum number of retries for accounting packets, set `acct-limit-retry` to a value greater than 0 (zero). A value of 0 (the default) indicates an unlimited number of retries.

Note The Stinger unit always makes at least one attempt. For example, if you set the number of retries to 10, the Stinger unit makes 11 attempts—the original attempt plus 10 retries.

Example `set acct-limit-retry = 10`

Location `EXTERNAL-AUTH:rad-acct-client`

acct-port

Description Specifies the UDP destination port to use for external accounting requests. When using RADIUS accounting, you can set `acct-port` globally and for each connection.

Usage Specify a UDP port number from 1 to 32767. The value must match the port number the accounting daemon uses. Following are the defaults for RADIUS:

- The default in a `connection` profile is 1646.
- The default in the `external-auth` profile is 0 (zero).

Example `set acct-port = 1500`

Dependencies If the `acct-type` parameter value does not specify `radius`, `acct-port` does not apply.

Location `CONNECTION:usrrad-options`
`EXTERNAL-AUTH:rad-acct-client`

acct-radius-compat

Description Enables or disables vendor-specific attribute (VSA) compatibility mode when the Stinger unit is using RADIUS for accounting purposes.

Usage Valid values are as follows:

- `old-ascend`—Specifies that the Stinger unit does not send the vendor-specific attribute to the RADIUS server and does not recognize the vendor-specific attribute if the server sends it. This is the default.
- `vendor-specific`—Specifies that the Stinger unit uses the vendor-specific attribute to encapsulate Lucent vendor attributes, and uses the RFC-defined User-Password encryption algorithm as well.

Example `set acct-radius-compat = vendor-specific`

Location `EXTERNAL-AUTH:rad-acct-client`

acct-reset-time

Description Specifies the number of seconds that must elapse before the Stinger unit returns to using the primary RADIUS accounting server.

Usage Specify the number of seconds. The default is 0 (zero), which specifies that the Stinger unit does not return to using the primary RADIUS accounting server.

Example `set acct-reset-time = 60`

Dependencies For `acct-reset-time` to apply, you must specify at least one value for the Acct-Server-*N* parameter.

Location `EXTERNAL-AUTH:rad-acct-client`

acct-server-*n*

Description Specifies the IP addresses of up to three external accounting servers. The Stinger unit first tries to connect to server 1. If it receives no response, it tries to connect to server 2. If it still receives no response, it tries to connect to server 3.

Usage Specify an IP address in dotted decimal notation. The default is 0.0.0.0, which indicates that no accounting server exists.

Example `set acct-server-1 = 10.2.3.4/24`

Dependencies Consider the following:

- If the `acct-type` parameter value does not specify `radius`, `acct-server-`*n* does not apply.

- If the Stinger unit connects to a server other than server 1, and `acct-reset-time` is set to 0, the Stinger unit continues to use that server until it fails to service requests, even if server 1 comes back online. If the `acct-reset-time` parameter is set to a value other than 0 (zero), the Stinger unit returns to using the primary accounting server after the number of seconds specified by `acct-reset-time` has elapsed.

Location `EXTERNAL-AUTH:rad-acct-client`

acct-sess-interval

Description Specifies the number of seconds between RADIUS accounting reports that record the number of open sessions.

Usage Specify a number of seconds from 0 to 65535. The default is 0 (zero), which turns off regular RADIUS open-session reports.

Example `set acct-sess-interval = 15`

Dependencies If the `acct-type` parameter value does not specify RADIUS, `acct-sess-interval` does not apply. `Acct-Sess-Interval` has no effect unless the Lucent RADIUS daemon is running.

Location `EXTERNAL-AUTH:rad-acct-client`

acct-src-port

Description Specifies the UDP source port to use for RADIUS accounting.

Usage Specify a value from 0 to 65535. The default is 0 (zero), which specifies that the Stinger unit selects the source port from the nonprivileged port range, 1024 through 2000.

Example `set acct-src-port = 3278`

Dependencies The Stinger unit uses the source port number to demultiplex the RADIUS reply packets to the appropriate line or trunk module. The system uses a separate source port for each module and shelf controller. On the Stinger unit, the actual source port is the value of `acct-src-port` plus the slot number. The slot number is 0 (zero) for the control module. So, if you set `acct-src-port` to 1000, packets originating from the control module have a source port value of 1000, while packets originating from slot 6 have a source port value of 1006.

Location `EXTERNAL-AUTH:rad-acct-client`

acct-stop-only

Description Specifies whether the Stinger unit can send an Accounting Stop packet that does not contain a username. (At times, the Stinger unit can send an Accounting Stop packet to the RADIUS server without having sent an Accounting Start packet. These Stop packets have no username.)

Usage Valid values are as follows:

- yes—Specifies that the Stinger unit can send an Accounting Stop packet even if it does not contain a username. This is the default.
- no—Specifies that the Stinger unit cannot send an Accounting Sop packet if it does not contain a username.

Example `set acct-stop-only = no`

Location `EXTERNAL-AUTH:rad-acct-client`

acct-timeout

Description Specifies the amount of time (in seconds) that the Stinger unit waits for a response to a RADIUS accounting request. You can set `acct-timeout` globally and for each connection.

If it does not receive a response within the specified time, the Stinger unit sends the accounting request to the next server specified by `acct-server-n`. If all RADIUS accounting servers are busy, the Stinger unit stores the accounting request and tries again at a later time. It can queue up to 154 requests.

Usage Specify an integer from 1 to 10. Following are the defaults:

- The default for a `connection` profile is 1.
- The default for the `external-auth` profile is 1.

Example `set acct-timeout = 5`

Dependencies If the `acct-type` parameter does not specify `radius`, `acct-timeout` does not apply.

Location `CONNECTION:usrrad-options`
`EXTERNAL-AUTH:rad-acct-client`

acct-tunnel-connection-encoding

Description Specifies an encoding method for the value of the RADIUS `Acct-Tunnel-Connection` attribute. NavisRadius™ software uses the value generated by the default setting of this parameter.

Usage Specify one of the following values:

- `normal`—Generates the `Acct-Tunnel-Connection` attribute value from the source and destination IP addresses, tunnel ID, and connection ID. This is the default.
- `decimal-call-serial-number`—Generates the `Acct-Tunnel-Connection` attribute value from the 32-bit Layer 2 Tunneling Protocol (L2TP) call serial number (CSN) encoded as a decimal string.
- `hexadecimal-call-serial-number`—Generates the `Acct-Tunnel-Connection` attribute value from the L2TP CSN encoded as a hexadecimal string.

Example `set acct-tunnel-connection = decimal-call-serial-number`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

acct-type

Description Specifies whether to use RADIUS accounting or no accounting at all. You can specify accounting globally and for each connection.

Usage To enable or disable accounting in the `external-auth` profile, specify one of the following values:

- `none`—Disables accounting. This is the default.
- `radius`—Enables RADIUS accounting.

To set accounting policy for a particular connection, specify one of the following values in the `connection` profile:

- `global`—Specifies that the Stinger unit sends accounting information to one of the accounting servers specified by the `external-auth` profile. This is the default.
- `local`—Specifies that the Stinger unit sends accounting information to the accounting server specified by `acct-host` in the `connection` profile.
- `both`—Specifies that the Stinger unit sends accounting information to both the global and local servers.

Example `set acct-type = radius`

Dependencies Consider the following:

- If you set `auth-type` to `radius/logout`, the Stinger unit disables RADIUS accounting. For `acct-type` to have any effect in a `connection` profile, you must set `auth-type` to `radius`.
- If you set `acct-type` to `radius`, you must set the `acct-server` parameter to specify at least one accounting server, and that server must be running a version of the daemon that specifically supports accounting.

Location `CONNECTION:usrrad-options`
`EXTERNAL-AUTH`

accum-bit-err

Description Read-only. Indicates the read-only number of actual bit errors detected during a continuous bit-error-rate test (BERT).

Usage The `accum-bit-err` value is read-only.

Example `accum-bit-err = 0`

Location `AL-DMT-STAT:physical-status`

acf-comp-enabled

Description *Not used.* Specifies whether the PPP address and control field compression are enabled or disabled.

Usage Valid values are as follows:

- `yes`—Compression is enabled.
- `no`—Compression is disabled. This is the default.

Location CONNECTION:ppp-options

action

Description Specifies an action to take on a route that matches the filter specification.

Usage Specify one of the following values:

- add—Increases the metric field of the matching routes by the add-metric value and then add them to the routing table.
- accept—Adds the matching routes to the routing table.
- deny—Rejects the matching routes (does not add them to the routing table).

Example `set action = add`

Dependencies This setting applies only if the type parameter in the input filter or output filter subprofile is set to route-filter.

Location FILTER:input-filters[*n*]:route-filter
FILTER:output-filters[*n*]:route-filter

activate-access

Description Read-only. Indicates whether the copper loop is connected for a copper loop test (CLT).

Usage Valid values for this read-only parameter are as follows:

- yes—Copper loop is connected as specified.
- no—Copper loop is disconnected from the test head or test terminals. This is the default.

Example activate-access = no

Location CLT-MS-ACCESS

activate-test

Description Activates or deactivates a test.

Usage Valid values are as follows:

- yes—Disconnects any existing calls on tested ports and begins the test.
- no—Reconnects any disconnected calls and stops the test. This is the default.

Example `set activate-test = yes`

Location LINE-TESTS

activation

Description *Not currently used.*

Usage Leave the default value: `static`.

Example `activation = static`

Location `AL-DMT:line-config`
`DS3-ATM:line-config`
`HDSL2:line-config`
`SHDSL:line-config`

active

Description Specifies the activation of an interface or feature. An active interface is available for use.

Usage Valid values are as follows:

In the `mcast-service` profile:

- `yes`—Service is enabled. Access to multicast groups by the client is controlled by this profile.
- `no`—Service is disabled. Access to any multicast groups by the client is blocked. This is the default value.

In the `mcast-service:filter-list[n]` profile:

- `yes`—Filter is enabled. Access to `mcast-ip-address` is controlled by `filter-type` parameter.
- `no` (the default)—Filter is disabled.

In other profiles:

- `yes`—Activates the interface or feature. This is the default in the `debug`, `lim-sparing-status`, `switch-config`, and `vrouter` profiles only.
- `no`—Makes the interface or feature unavailable for use. This is the default in all other profiles.

Example `set active = yes`

Location `APS-CONFIG`
`CONNECTION`
`CONNECTION:ip-options:tos-options`
`DEBUG`
`FRAME-RELAY`
`IMA-GROUP`
`LIM-SPARING-CONFIG:auto-lim-sparing-config:lim-sparing-config[n]`
`LIM-SPARING-STATUS:lim-sparing-status[`*n*`]`
`MCAST-SERVICE`
`MCAST-SERVICE:filter-list[n]`
`MULTI-LINK-FR`
`IMAGROUP`
`IP-INTERFACE:ospf`
`PNNI-METRICS`

PNNI-ROUTE-ADDR
PNNI-ROUTE-TNS
PNNI-SUMMARY-ADDR
SWITCH-CONFIG:atm-parameters:outgoing-queue:outgoing-queue[*n*]
VACM-ACCESS
VACM-SECURITY-GROUP
VACM-VIEW-TREE
VROUTER

active-enabled

Description Specifies whether one of the following profiles is enabled or disabled:

- `user` profile—Specifies whether the profile is enabled or disabled. A disabled profile is not available for use. A dash appears before each inactive profile.
- `snmpv3-notifications` or `snmpv3-target-param` profile—Specifies whether the profile is used to generate notifications.
- `trap` profile—Specifies whether traps are sent to the host specified by the profile.

Usage Valid values are as follows:

In a `user` profile

- `yes`—Enables the `user` profile. This is the default.
- `no`—Disables the `user` profile.

In an `snmpv3-notifications` or `snmpv3-target-param` profile

- `yes`—Specifies that the profile is used to generate notifications.
- `no`—Specifies that the profile is not used to generate notifications. This is the default.

In a `trap` profile

- `yes`—Specifies traps are sent. This is the default.
- `no`—Specifies that traps are not sent.

Example `set active-enabled = yes`

Location USER
SNMPV3-NOTIFICATIONS
SNMPV3-TARGET-PARAM
TRAP

activelinkcount

Description Read-only. Indicates the number of active data link connection identifiers (DLCI) in the permanent virtual circuit (PVC).

Usage Read-only numeric parameter with a range of 0 to 65535.

Example `activelinkcount = 10`

Location FRPVC-STAT

active-route

Description Enables or disables the entry of a route in the routing table. (Setting the parameter to `no` is a useful way to make a route temporarily inactive, so you can reinstate the route later.)

Usage Specify `yes` or `no`. The default is `yes`, except for the `ip-route` profile called `default`. For the `default ip-route` profile, the default is `no`.

- `yes`—Activates the static route and add it to the routing table.
- `no`—Deactivates the route. An inactive route does not affect packet routing.

Example `set active-route = yes`

Dependencies The default route is an `ip-route` profile with the name `default` and a destination address of 0.0.0.0/0. To activate the default route, you must set `gateway-address` to the IP address of the default router, and set `active-route` to `yes`.

Location `IP-ROUTE`

active-upstream-bandwidth-on-trunks

Description Read-only. Indicates the active trunk-side bandwidth, based on the number of trunk ports and their status.

Usage The `active-upstream-bandwidth-on-trunks` value is read-only.

Example `active-upstream-bandwidth-on-trunks = 155540`

Location `BANDWIDTH-STATS`

add-link-cond-time

Description *Not currently used*. Specifies the link conditioning time-out, in seconds, during link addition or insertion.

Usage Leave the default value.

Example `add-link-cond-time = 0`

Location `DS1-ATM:line-config:ima-option-config:txlink-config`
`DS1-ATM:line-config:ima-option-config:rxlink-config`

add-metric

Description Specifies a number to add to the metric value for a route that matches the route filter specification, if the specified value for the `action` parameter is `add`.

Usage Specify a number from 1 to 15. The number you specify must not result in a route metric greater than 15. The default is 0 (zero).

Example `set add-metric = 5`

Dependencies This setting applies only if in the `input` or `output` subprofile, the `type` parameter is set to `route-filter` and the `action` parameter is set to `add`.

Location `FILTER:input-filters[n]:route-filter`
`FILTER:output-filters[n]:route-filter`

add-persistence

Description Specifies the number of seconds that average line utilization (ALU) must persist beyond the target-utilization threshold before the Stinger unit adds bandwidth from available channels.

Usage Specify an integer from 1 to 300. The default is 5.

Example `set add-persistence = 15`

Dependencies Consider the following:

- When adding bandwidth, the unit adds the number of channels specified by `increment-channel-count` parameter in the `mpp-options` subprofile.
- When the `seconds-history` parameter value is high, `add-persistence` has little effect.

Location `ANSWER-DEFAULTS:mpp-answer`
`CONNECTION:mpp-options`

address

Description Specifies an address or a prefix to an address in one of several profiles. Depending on which profile the parameter is in, the `address` setting can be configurable or read-only.

Usage Address parameters have different uses in different profiles. The specific use of the address determines the number of bytes the address needs.

- In the `atm-addr-alias` profile, the address parameter specifies the Private Network-to-Network Interface (PNNI) node, the ATM end-system address, or a part of the end-system address. The number of bytes is specified in the `length` parameter setting in the same profile.
- In the `addr-index` subprofile of the `pnni-route-addr` profile, the `address` parameter specifies the prefix of a reachable ATM address.
- In the `pnni-summary-addr` profile, the `address` parameter specifies the prefix of a reachable ATM address.

Example `set address = 474100170017001700170017001700`

Location `ATM-ADDR-ALIAS`
`ATM-IF-CONFIG`
`ATM-IF-SIG-PARAMS`
`ATM-IF-STAT`
`PNNI-IF-CONFIG`
`PNNI-SUMMARY-ADDR:addr-index`

See Also `address (ATM-PREFIX:pnni-node-prefix), address (ATM-PREFIX:spvc-address-prefix), address (ATM-PREFIX:svc-address-prefix)`

address (ATM-PREFIX:pnni-node-prefix)

Description Specifies the address prefix for Private Network-to-Network Interface (PNNI) node ATM addresses.

Usage Enter an address prefix value from 1 to 13 bytes long. The default value is a prefix value generated from the primary controller serial number.

Example `set address = 39:84:0f:80:01:bc:72:00:01:bc:e7:6c:02`

Dependencies Whenever you explicitly configure an address or a prefix setting, the system uses the value you specify rather than the system-generated default. If you delete the `atm-prefix` profile, the system creates a new one at the next system startup.

Location `ATM-PREFIX:pnni-node-prefix`

See Also `address, address (ATM-PREFIX:spvc-address-prefix), address (ATM-PREFIX:svc-address-prefix)`

address (ATM-PREFIX:spvc-address-prefix)

Description Specifies a prefix value used to generate the address in the default set of `atm-spvc-addr-config` profiles.

Usage Enter an address prefix value from 1 to 13 bytes long. The default value is 0.

Example `set address = 39:84:0f:80:01:bc:72:00:01:bc:e7:6c:02`

Dependencies With the default setting of 0, the value is taken from the `address` parameter in the `pnni-node-prefix` subprofile.

Location `ATM-PREFIX:spvc-address-prefix`

See Also `address (ATM-PREFIX:pnni-node-prefix), address, address (ATM-PREFIX:svc-address-prefix)`

address (ATM-PREFIX:svc-address-prefix)

Description Specifies a prefix value used to generate the address in the default set of `atm-svc-addr-config` profiles.

Usage Enter an address prefix value from 1 to 13 bytes long. The default value is 0.

Example `set address = 39:84:0f:80:01:bc:72:00:01:bc:e7:6c:02`

Dependencies With the default setting of 0, the value is taken from the `address` parameter in the `pnni-node-prefix` subprofile.

Location `ATM-PREFIX:svc-address-prefix`

See Also `address (ATM-PREFIX:pnni-node-prefix), address (ATM-PREFIX:spvc-address-prefix), address`

address-pool

Description Specifies a number of an address pool from which to acquire an address.

When pool chaining is enabled, a pool number within a chain includes addresses defined in all other pools within the chain. For example, if pools 1, 2, and 3 are in a pool chain, setting this parameter to 1 has the same effect as setting it to 2 or 3.

Usage Specify a number from 0 to 128. The default is 0 (zero).

Example `set address-pool = 5`

Dependencies If `address-pool` is set to 0 (zero) and `assign-address` is set to `yes`, the Stinger unit gets IP addresses from the first defined address pool.

Location `CONNECTION:ip-options`

advertize

Description Enables or disables an area border router's advertisement of an Open Shortest Path First (OSPF) area. Unadvertised areas allow certain networks to be intentionally hidden from other areas.

Usage Valid values are as follows:

- `yes`—The area border router summarizes and advertise routes from this area.
- `no` (the default)—The area border router does not summarize or propagate routes from this area.

Example `set advertize = yes`

Location `OSPF-AREA-RANGE`

adv-node-id

Description Specifies the ID of a Private Network-to-Network Interface (PNNI) node that advertises reachability to the address prefix.

Usage You can enter the full 22-byte ID or an alias.

Example `set adv-node-id =`
`00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:0+`

Location `PNNI-ROUTE-ADDR`

adv-port-id

Description Specifies the identifier on the advertising node of the interface used to reach the address prefix.

Usage Specify a number from zero (0) to 2147483647. The default is 0.

Example `set adv-port-id = 0`

Location `PNNI-ROUTE-ADDR`

agent-mode

Description Specifies whether the Stinger unit operates as an Ascend Tunnel Management Protocol (ATMP) Foreign Agent or Home Agent, or selects which of those two modes to use for different traffic streams.

Usage Specify one of the following values:

- `tunnel-disabled` (the default)—Disables ATMP.
- `home-agent`—Operates as a Home Agent.
- `foreign-agent`—Operates as a Foreign Agent.
- `home-and-foreign-agent`—Operates as both a Home Agent and a Foreign Agent.

Example `set agent-mode = foreign-agent`

Dependencies If you change the `agent-mode` setting from its default, the new value does not take effect until you reset the system.

Location `ATMP`

agent-type

Description In an Ascend Tunnel Management Protocol (ATMP) Home Agent configuration, this parameter specifies `gateway-home-agent` (the default) or `router-home-agent`, depending on how the Home Agent accesses the home network.

Usage Specify one of the following values:

- `gateway-home-agent` (the default)—Delivers tunneled data to the home network without routing. The connection between the Home Agent and the home network must be a leased connection.
- `router-home-agent`—Routes tunneled data to the home network.

Example `set agent-type = router-home-agent`

Dependencies This setting applies only when the `agent-mode` parameter is set to `home-agent`.

Location `ATMP`

aggregate

Description Specifies whether virtual circuits using this traffic shaper are to be aggregated or not.

Usage Valid values are as follows:

- `yes`—Virtual circuits are aggregated. If the parameter set to `yes` and the traffic shaper is applied to more than one virtual circuit, the combined virtual circuits share the full bandwidth defined in the shaper.
- `no` (the default)—Virtual circuits are not aggregated.

Example `set aggregate = yes`

Location `SYSTEM:traffic-shapers` *n*
`ATM-INTERNAL:traffic-shapers` *n*

aim-enabled

Description Read-only. Indicates whether the unit enables Ascend Inverse Multiplexing (AIM).

Usage The `aim-enabled` setting is read-only. Values are as follows:

- `yes`—Indicates that AIM is enabled.
- `no`—Indicates that AIM is not enabled. This is the default.

Example `aim-enabled = yes`

Location `BASE`

ais-receive

Description Read-only. Indicates whether the remote end is sending an Alarm Indication signal (AIS) on the line. The remote end sends an AIS (instead of normal data) to take the line out of service.

Usage The `ais-receive` setting is read-only. Values are as follows:

- `true`—Indicates that the remote end is sending an AIS.
- `false`—Indicates that the remote end is not sending an AIS.

Example `ais-receive = true`

Location `DS1-ATM-STAT`
`DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`
`T1-STAT`

alarm-clear-table-limit

Description Specifies the maximum number of alarms that can be stored in `alarmClearTable`.

Usage Specify a number from 1 through 200. The default is 100.

Example **`set alarm-clear-table-limit = 150`**

Location `SNMP`

alarm-enabled

Description Specifies whether the Stinger unit traps alarm events and sends a trap protocol data unit (PDU) to the SNMP manager. The Ascend Enterprise MIB defines the following alarm events. For a complete list, see the *Stinger Administration Guide* or the Ascend Enterprise MIB.

Alarm event	Indicates that the unit
coldStart (RFC-1215 trap-type 0)	Is reinitializing itself in such a way that it might alter the configuration of either the SNMP manager or the unit.
warmStart (RFC-1215 trap-type 1)	Is reinitializing itself so that neither the configuration of the SNMP manager nor that of the unit will change.
linkDown (RFC-1215 trap-type 2)	Recognizes a failure in one of the communication links represented in the SNMP manager's configuration.
linkUp (RFC-1215 trap-type 3)	Recognizes that one of the communication links represented in the SNMP manager's configuration has come up.
frDLCIStatusChange (RFC-1315 trap-type 1)	Recognizes that one of the virtual circuits has changed states. The link has been created, invalidated, or toggled between the active and inactive states.
eventTableOverwrite (Lucent trap-type 16)	Detected that a new event has overwritten an unread event. Once sent, additional overwrites will not cause another trap to be sent until at least one table's worth of new events has occurred.

Usage Valid values are as follows:

- yes (the default)—Specifies that the Stinger unit sends alarm-event traps to the host specified in the host-address parameter setting in the TRAP profile.
- no—Specifies that the Stinger unit does not send alarm-event traps.

Example `set alarm-enabled = no`

Location TRAP

alarm-led-major

Description Specifies the behavior of the MAJOR alarm status light when the system detects a major alarm.

Usage Valid values are as follows:

- `on`—The `major` alarm status light illuminates when the system detects the event specified by `event` in the `alarm` profile.
- `off` (the default)—The `major` alarm status light remains off when the system detects an event.

Example `set alarm-led-major = on`

Location `ALARM:action`

alarm-led-minor

Description Specifies the behavior of the MINOR alarm status light when the system detects a minor alarm.

Usage Valid values are as follows:

- `on`—The `minor` alarm status light illuminates when the system detects the event specified by `event` in the `alarm` profile.
- `off` (the default)—The `minor` alarm status light remains off when the system detects an event.

Example `set alarm-led-minor = on`

Location `ALARM:action`

alarm-relay-major

Description Specifies the behavior of the `major` alarm relay.

Usage Valid values are as follows:

- `on`—Sets the relay for the `major` alarm circuit to close when the system detects the condition specified by `event`.
- `off` (the default)—Sets the relay for the `major` alarm circuit to ignore the condition specified by `event`.

Example `set alarm-relay-major = on`

Location `ALARM:action`

alarm-relay-major-duration

Description Specifies the number of seconds that the Stinger unit leaves `alarm-relay-major` in the position specified in the `alarm-relay-major` parameter.

Usage Specify an integer. The default is 0 (zero), which directs the Stinger unit to leave the alarm set indefinitely.

Example `set alarm-relay-major-duration = 30`

Location `ALARM:action`

alarm-relay-minor

Description Specifies the behavior of the `minor` alarm relay.

Usage Valid values are as follows:

- `on`—Sets the relay for the `minor` alarm circuit to close when the system detects the condition specified by `event`.
- `off` (the default)—Sets the relay for the `minor` alarm circuit to ignore the condition specified by `event`.

Example `set alarm-relay-minor = on`

Location `ALARM:action`

alarm-relay-minor-duration

Description Specifies the number of seconds that the Stinger unit leaves `alarm-relay-minor` in the position specified in the `alarm-relay-minor` parameter.

Usage Specify a number. The default is 0 (zero), which directs the Stinger unit to leave the alarm set indefinitely.

Example `set alarm-relay-minor-duration = 30`

Location `ALARM:action`

alarm-state

Description Read-only. Indicates the status of the alarm specified by `alarm-id`.

Usage Valid values are as follows:

- `alarm-active`—Indicates that the alarm is active and appropriate action has been taken (setting status lights or closing relays).
- `alarm-acknowledged`—Indicates that the alarm has been acknowledged by the user.

Example `alarm-state = alarm-active`

Note You can acknowledge the alarm by using the `alarm -a` command.

Location `ALARM-STAT`

alcatel-us-413-boost

Description Provides an increase in upstream rate in T1.413 mode for 24 or 48-port Annex A line interface modules (LIMs) based on the Globespan chip set when connected to Alcatel customer premises equipment (CPE).

Caution This parameter is irrelevant for any other situation. Use it with extreme caution.

Usage Specify one of the following values:

- `new`—Use with firmware releases 3.6.7.0 or later.
- `old`—Use with firmware release earlier than 3.6.7.0.
- `unknown`—Lucent Technologies recommends that this value be used for all firmware releases. This is the default value.

Example `set alcatel-us-413-boost = old`

Location `AL-DMT:line-config`

al-dmtadsl-atm

Description Controls whether code images for ADSL line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Loads the code image if there is a module installed of that type. This is the default.
- `load`—Loads the image when one is present in the tar file
- `skip`—Skips the code image when one is present in the tar file

Example `set al-dmtadsl-atm = auto`

Location `LOAD-SELECT`

alias-name

Description Specifies a name to represent the address identified the `atm-addr-alias` profile. This parameter provides a more convenient way of accessing the ATM address.

Usage Specify a string of up to 20 characters. The default is null.

Example `set alias-name = node1alias`

Location `ATM-ADDR-ALIAS`

allow-as-client-dns-info

Description Enables or disables an exit mechanism to local servers if the client Domain Name System (DNS) servers are not found. To isolate local network information, set this parameter to `false`.

When specified in a `vrouter` profile, this DNS setting is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router uses the DNS settings defined in the `ip-global` profile

Usage Valid values are as follows:

- `true` (the default)—Makes the local DNS servers accessible to PPP connections if the client DNS servers are unavailable.
- `false`—Does not make local DNS servers accessible to PPP connections if the client DNS servers are unavailable.

Example `set allow-as-client-dns-info = false`

Location `IP-GLOBAL`
`VROUTER`

allow-auth-config-rqsts

Description Specifies whether the unit allows external configuration requests in authentication processing.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the unit allows external configuration requests in authentication processing.
- `no`—Specifies that the unit does not allow external configuration requests in authentication processing.

Example `set allow-auth-config-rqsts = no`

Location `EXTERNAL-AUTH:rad-auth-client`

allow-code

Description Specifies whether permission to upload code to the Stinger unit and use the following code-level commands is enabled or disabled:

- `format`—Prepares a flash card for use.
- `fsck`—Checks the file system on a flash card.

Usage Valid values are as follows:

- `yes`—Grants permission to upload code to the Stinger unit.
- `no` (the default)—Denies permission to upload code to the Stinger unit.

Example `set allow-code = yes`

Location `USER`

allow-debug

Description Enables or disables user access to debug commands.

Usage Specify one of the following values:

- `no`—User cannot use debug commands. This is the default value.
- `yes`—User can use debug commands.

Example `set allow-debug = yes`

Location `USER`

allow-diagnostic

Description Specifies permission to all commands with a permission level of `diagnostic`, including the following:

Command	Description
`clock-source`	Display clock-source statistics.
`debug`	Enable or disable diagnostic output.
`device`	Start or halt a device.
`ether-display`	Display the contents of received Ethernet packets.
`if-admin`	Administer an interface.
`open`	Start a session with a line interface or trunk module.
`ping`	Ping the specified host.
`slot`	Administer a line interface or trunk module.
`telnet`	Open a Telnet session.
`traceroute`	Display route statistics.
`uptime`	Report how long the system has been operational and how long individual modules have been operational.

Usage Valid values are as follows:

- `yes`—Grants permission to use diagnostic commands.
- `no` (the default)—Denies permission to use diagnostic commands.

Example `set allow-diagnostic = yes`

Location `USER`

allow-guaranteed-up-stream-bandwidth

Description Specifies the guaranteed upstream bandwidth for a slot.

Usage Specify an integer in kilobits per second. The default is 42500Kbps for each line interface module (LIM), which distributes the sum of 599040Kbps across the 14 LIM slots. Typically, slots with a high requirement for real-time traffic need high guaranteed bandwidth.

Example `set allow-guaranteed-up-stream-bandwidth = 80000`

Dependencies Even when the system is heavily loaded or the network is congested, the slot should be able to send upstream traffic at the rate of the specified `allow-guaranteed-up-stream-bandwidth` value. The total of all guaranteed upstream bandwidth for all slots cannot exceed the maximum upstream capacity of the system.

Location `SLOT-STATIC-CONFIG`

allow-max-up-stream-bandwidth

Description Specifies the maximum upstream bandwidth for the slot.

Usage Specify a value in kilobits per second (Kbps) from 0 to 155000 (OC3 speed). The default is 70,000Kbps for each line interface module (LIM), and 1000Kbps for each control module.

Example `set allow-max-up-stream-bandwidth = 80000`

Dependencies For some LIMs, the default `allow-max-up-stream-bandwidth` setting of 70Mbps is too low, which can cause a fully loaded LIM to drop upstream data cells.

For any LIM that supports upstream bandwidth greater than 70Mbps, you must modify the default setting for the `allow-max-up-stream-bandwidth` parameter to prevent the module from dropping data cells when it is fully loaded.

Note A 155Mb throughput on a LIM is not guaranteed traffic. If a LIM allows traffic up to that limit, the system makes a best-effort attempt to deliver it.

Location `SLOT-STATIC-CONFIG`

allow-password

Description Specifies permission to view passwords.

Usage Valid values are as follows:

- `yes`—Grants permission to view passwords.
- `no` (the default)—Denies permission to view passwords.

Example `set allow-password = yes`

Location `USER`

allow-system

Description Enables or disables permission to use all commands with a permission level of `system`, including the following:

Command	Description
`arptable`	Display or modify the Stinger address resolution protocol (ARP) table.
`clr-history`	Clear the fatal-error history log.
`connection`	Display the connection-status window.
`dir`	List profiles and profile types.
`dircode`	Show the contents of the PCMCIA module code.
`fatal-history`	List the fatal-error history log.
`get`	Display settings in a profile.
`iproute`	Add or delete IP routes.
`line`	Display the line-status window.
`list`	List settings in the working profile.
`log`	Display and control the event-log window.
`netstat`	Display the routing or interface tables.
`new`	Create a new profile.
`read`	Make the specified profile the working profile.
`refresh`	Refresh the remote configuration.
`set`	Specify a value.
`show`	Show shelves, slots, ports, or items.
`status`	Display the system status or hide the status window.
`userstat`	Display user session status.
`version`	Display software-version information.
`view`	Change the contents of a status window.

Usage Valid values are as follows:

- `yes`—Grants permission to use system commands.
- `no`—Denies permission to use system commands. This is the default.

Example `set allow-system = yes`

Location `USER`

allow-termserv

Description *Not used.* Enables or disables permission to use the terminal server and its commands.

Usage Valid values are as follows:

- yes—Grants permission to use the terminal server and its commands.
- no—Denies permission to use the terminal server and its commands. This is the default.

Example `set allow-termserv = yes`

Location USER

allow-unencrypted-tunnel-password

Description Enables or disables acceptance of unencrypted tunnel passwords from RADIUS.

Usage Specify one of the following values:

- no (the default)—Only encrypted tunnel passwords from RADIUS are accepted.
- yes—Unencrypted or encrypted tunnel-passwords are accepted from RADIUS.

Example `set allow-unencrypted-tunnel-password = yes`

Dependencies When this parameter is set to yes, RADIUS must encrypt the tunnel password before sending out to the tunnel server.

Location EXTERNAL-AUTH:rad-auth-client

allow-update

Description Specifies permission to use all commands with a permission level of update, including the following:

Command	Description
date	Set the system date.
delete	Delete the specified profile.
load	Load code or saved configuration to flash.
nvram	Clear the configuration and reboot the system.
reset	Reboot the system.
save	Save a profile for a future restore.
write	Store the working profile and save changes.

Usage Valid values are as follows:

- `yes`—Grants permission to use update commands.
- `no`—Denies permission to use update commands. This is the default.

Example `set allow-update = yes`

Location `USER`

alpha-cell-delin-value

Description Specifies the number of consecutive cells with incorrect header error control (HEC) that must be reached before the Stinger unit leaves the SYNC state (where the Stinger unit has correctly recognized cell boundaries) to go to the HUNT state (where the Stinger unit is still searching for the cell boundary) in an ATM connection.

Usage Specify a number from one to 16. The default is 7.

Example `alpha-cell-delin-value = 7`

Location `IMAHW-CONFIG`

alpha-ima-value

Description Specifies the number of consecutive invalid IMA Control Protocol (ICP) cells that the Stinger unit must detect before changing to inverse multiplexing ATM (IMA) HUNT state (cell-by-cell validation) from the SYNC state (frame-by-frame validation).

Usage Specify the number 1 (one) or the number 2. The default is 2.

Example `set alpha-ima-value = 1`

Location `IMAHW-CONFIG`

annexb-anfp-enabled

Description *Parameter for internal use only.*

Location `HDSL2:line-config`
`SHDSL:line-config`

annexb-dmtadsl

Description *Not used.* Specifies whether code images for 12-port Annex B ADSL line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Load the code image if there is a module installed of that type. This is the default.
- `load`—Load the code image when one is present in the tar file.
- `skip`—Skip the code image when one is present in the tar file.

Example `set annexb-dmtadsl = auto`

Location `LOAD-SELECT`

ans-default

Description *Not used.*

Location `CONNECTION:answer-options`

ansi-adsl-ver

Description Read-only. Indicates the supported issue of the ANSI T1.413 standard (issue 2).

Usage The `ansi-adsl-ver` value is read-only.

Example `ansi-adsl-ver = 2`

Location `AL-DMT-STAT:physical-status`

answer-number-1

Description Specifies the first telephone number to be used for the analog device attached to the Stinger unit. The Stinger unit uses this number, or the value in `answer-number-2`, to route all calls it receives with this number to the device.

Usage Enter a telephone number of up to 24 characters.

Example `set answer-number-1 = 747-5775`

Location `IDSL:line-interface`

answer-number-2

Description Specifies a second telephone number to be used for the analog device attached to the Stinger unit. The Stinger unit uses this number, or the value in `answer-number-1`, to route all calls it receives with this number to the device.

Usage Enter a telephone number of up to 24 characters.

Example `set answer-number-2 = 747-5776`

Location `IDSL:line-interface`

answer-originate

Description *Not supported.* Specifies whether the `connection` profile allows dial-out capability.

Location `CONNECTION:telco-options`

apply-to

Description Specifies the direction in which type-of-service (TOS) settings are enabled.

Usage Specify one of the following values:

- `input` (the default)—Set bits in packets received on the interface.
- `output`—Set bits in packets transmitted on the interface.
- `both`—Set bits in packets sent and received on the interface.

Example `set apply-to = both`

Dependencies For this setting to apply, TOS and IP routing must be enabled in the `connection` profile.

Location `CONNECTION:ip-options:tos-options`

aps-cfg-creation-time

Description Read-only. A timestamp that indicates the amount of time that has elapsed since the creation of the `aps-config` profile in automatic protection switching (APS). The TAOS timestamp shows the number of ticks since December 1, 1990.

Usage The valid range for this read-only parameter is from 0 through 2147483647.

Example `aps-cfg-creation-time = 356537747`

Location `APS-STAT`

aps-channel-low-direction

Description Read-only. Indicates the state of lockout of the working (LOW) direction in the automatic protection (APS) system.

Usage Valid values for this read-only parameter are as follows

- `low-none` (the default)—No lock out of the working channel in either direction currently exists.
- `low-recv`—There is a lock out of the working channel in the receive direction.
- `low-send`—There is a lock out of the working channel in the send direction.
- `low-both`—There is a lock out of the working channel in the both directions.

Example `aps-channel-low-direction = none`

Location `OC3-ATM-STAT`

aps-channel-recv-ais-count

Description Read-only. Indicates the count of Alarm Indication signal (AIS)-L errors received on the channel.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default is 0.

Example `aps-channel-recv-ais-count = 0`

Location `OC3-ATM-STAT`

aps-channel-recv-rdi-count

Description Read-only. Indicates the count of restricted digital information (RDI)-L received on the protection channel.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default is 0.

Example `aps-channel-recv-rdi-count = 2`

Location `OC3-ATM-STAT`

aps-channel-recv-sd-count

Description Read-only. Indicates the number of signal degrade conditions (line bit-error rates beyond the configured threshold) received over the K1K2 automatic protection switching (APS) channel from the far-end.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default is 0.

Example `aps-channel-rec-sf-condition = 0`

Location `OC3-ATM-STAT`

aps-channel-recv-sf-condition

Description Read-only. Indicates the number of signal degrade conditions (line bit-error rates beyond the configured threshold) received over the K1K2 APS channel from the far-end.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default is 0.

Example `aps-channel-rec-sf-condition = 0`

Location `OC3-ATM-STAT`

aps-channel-recv-sf-count

Description Read-only. Indicates the count of signal failure condition—loss of signal, loss of frame, Alarm Indication signal (AIS)-L or bit-error rate (BER) exceeding the configured threshold— received on the channel.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default is 0.

Example `aps-channel-rec-sf-condition = 0`

Location `OC3-ATM-STAT`

aps-channel-sd-condition

Description Read-only. Indicates whether there is currently a signal degrade condition—line bit-error rates beyond the configured threshold—received over the K1K2 APS channel from the far end.

Usage Values for this read-only parameter are `true` and `false`.

Example `aps-channel-sd-condition = false`

Location `OC3-ATM-STAT`

aps-channel-sf-condition

Description Read-only. Indicates whether there is currently a signal-failure condition—loss of signal, loss of frame, Alarm Indication signal (AIS)-L or bit-error rate (BER)— exceeding the configured threshold.

Usage The values for this read-only parameter are `true` and `false`.

Example `aps-channel-sf-condition = false`

Location `OC3-ATM-STAT`

aps-channel-status

Description Read-only. Indicates the current status of the channel (port).

Usage Valid values for this read-only parameter are as follows:

- `on-protection`—The channel is currently switched to the protection channel.
- `on-working`—The channel is currently switched to the working channel.

Example `aps-channel-status = on-working`

Location `OC3-ATM-STAT`

aps-config-name

Description Does one of the following:

- In the OC3-ATM profile, configures the protection group in a channel using automatic protection switching (APS).

  The protection group is created for each OC3-ATM trunk port on the trunk aggregation module (TRAM) when the `aps-config` profile is configured and activated, and is referred to from one of the OC3-ATM profiles.
- In the OC3-ATM-STAT profile, indicates the name of the APS group.

Usage Specify the name of the `aps-config` profile.

Example `set aps-config-name = pg1`

Location `OC3-ATM`
`OC3-ATM-STAT`

aps-enabled

Description Read-only. Indicates the license status of the automatic protection switching (APS) feature.

Usage Read-only parameter with the following values:

- no—APS feature is not enabled.
- yes—APS feature is enabled.

Example `aps-enabled = yes`

Location `BASE`

aps-state

Description Indicates the current state of the protection group.

Usage Values for this read-only parameter are as follows:

- `unknown`— The state of protection group is unknown. Occurs when, for example, protection group is not started.
- `on-protection`— The active channel is currently the protection channel.
- `on-working`— The active channel is currently the working channel.

Example `aps-state = on-working`

Location `APS-STAT`

area

Description Specifies the Open Shortest Path First (OSPF) area that the connection or interface belongs to.

Usage Specify an area ID in dotted decimal notation. The default is `0.0.0.0`, which represents the backbone network.

Example **`set area = 0.0.0.1`**

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`

area-id

Description Specifies the Open Shortest Path First (OSPF) area ID for this area range.

Usage Specify an area ID in dotted decimal notation. Area numbers are not IP addresses, although they use a similar format. The area ID of `0.0.0.0` is reserved for the backbone.

Example **`set area-id = 0.0.0.2`**

Location `OSPF-AREA-RANGE`

area-network-addr

Description Specifies a network address range belonging to an area within an Open Shortest Path First (OSPF) autonomous system (AS). Network addresses with the same `area id` belong to the same OSPF area.

Usage Specify an IP address in dotted decimal notation. If the area represents a network subnet, enter the IP network number of the network subnet.

Example **`set area-network-addr = 192.168.200.0`**

Location `OSPF-AREA-RANGE`

area-network-mask

Description Specifies the subnet mask for a network address range belonging to an area within an Open Shortest Path First (OSPF) autonomous system (AS).

Usage Specify a subnet mask in dotted decimal notation.

Example `set area-network-mask = 255.255.255.0`

Location `OSPF-AREA-RANGE`

area-type

Description Specifies the type of Open Shortest Path First (OSPF) area that the connection or interface belongs to.

Usage Specify one of the following settings:

- `normal` (the default)—The router maintains information about external routes.
- `stub`—All external routes are summarized by a default route. A stub area is similar to a regular area, except that the routers do not enter external routes in the area's databases. For an area that has only one exit point, you need not maintain information about external routes.
- `nssa`—An OSPF not-so-stubby area (NSSA).

Example `set area-type = normal`

Dependencies You must set `area-type` consistently on all OSPF routers within the area. If you change the OSPF `area-type` from `normal` to `nssa` or vice versa, you must reset the system for the change to take effect.

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`

as-boundary-router

Description Specifies whether the Stinger unit performs autonomous system border router (ASBR) calculations.

ASBRs perform calculations related to external routes. Normally, when the Stinger unit imports external routes from Routing Information Protocol (RIP), it performs the ASBR calculations for those routes. However, you can use the `as-boundary-router` setting to prevent the Stinger unit from performing ASBR calculations.

Usage Specify one of the following settings:

- `yes` (the default)—The Stinger unit performs ASBR calculations.
- `no`—The Stinger unit does not perform ASBR calculations.

Example `set as-boundary-router = no`

Location `IP-GLOBAL:ospf-global`

ascend-adsl-trap-enabled

Description Enables or disables sending of the ADSL remote power-down trap (notification) and Ascend-specific ADSL link-down trap to the identified host.

Usage Select one of the following values:

- `yes`—Enables sending of the trap.
- `no`—Disables sending of the trap. This is the default value.

Example `set ascend-adsl-trap-enabled = yes`

Location `TRAP`

ascend-cac-fail-trap-enabled

Description Enables or disables sending of a trap (notification) whenever a connection admission control (CAC) failure occurs for an Asynchronous Transfer Mode (ATM) connection.

Usage Select one of the following values:

- `yes`—Enables sending of the trap.
- `no`—Disables sending of the trap. This is the default value.

Example `set ascend-cac-fail-trap-enabled = yes`

Location `TRAP`

ascend-enabled

Description Specifies whether the Stinger SNMP agent generates a trap (notification) to indicate a change of state in a host interface. All port connections are monitored by the system and reported by means of this trap.

Usage Valid values are as follows:

- `yes`—Specifies that a trap is generated to indicate a change of state in a host interface. This is the default.
- `no`—Specifies that a trap is not generated to indicate a change of state in a host interface.

Example `set ascend-enabled = no`

Dependencies If you set `ascend-enabled` to `yes`, you must also set `port-enabled` in the `trap` profile to `yes`.

Location `TRAP`

ascend-flash-card-trap-enabled

Description Enables/disables the Stinger unit from generating a trap whenever you insert or remove a flash card from a control module.

Usage Valid values are as follows:

- `yes` (the default)—Enables trap generation.
- `no`—Disables trap generation.

Example `set ascend-flash-card-trap-enabled = no`

Location `TRAP`

ascend-hashcode-mismatch-trap-enabled

Description Enables/disables the sending of a trap if the primary and secondary control modules have different software licenses enabled. By default, the sytem does not send a trap when the primary and secondary control modules have different software licenses enabled (this parameter is set to `no`). Specify `yes` to enable the system to send a trap.

Note If `ascend-hashcode-mismatch-trap-enabled` is enabled, the system sends only a single trap for all instances of mismatched software licenses between the control modules.

Usage Valid values are as follows:

- `yes`—Enables trap generation.
- `no` (the default)—Disables trap generation.

Example `set ascend-hashcode-mismatch-trap-enabled = yes`

Location `TRAP`

ascend-link-down-trap-enabled

Description Specifies whether the system sends the Ascend link-down trap (notification) to the identified host when a failure occurs in a communication link between the unit and the SNMP manager.

Usage Specify one of the following values:

- `yes`—The system sends the Ascend link-down trap to the host.
- `no` (the default)—The system does not send the Ascend link-down trap to the host.

Example `set ascend-link-down-trap-enabled = yes`

Dependencies The `linkdown-enabled` parameter must be set to `yes` for this trap to be enabled.

Location `TRAP`

ascend-link-up-trap-enabled

Description Specifies whether the system sends the Ascend link-up trap (notification) to the identified host when the communication link between the unit and the SNMP manager is reestablished.

Usage Specify one of the following values:

- `yes`—The system sends the Ascend link-up trap to the host.
- `no` (the default)—The system does not send the Ascend link-up trap to the host.

Example `set ascend-link-uptrap-enabled = yes`

Dependencies The `linkup-enabled` parameter must be set to `yes` for this trap to be enabled.

Location `TRAP`

ascend-sw-mismatch-trap-enabled

Description Enables/disables the sending of a trap if the primary and secondary control modules have different software versions. By default, the sytem does not send a trap when the primary and secondary control modules have different software versions (this parameter is set to `no`). Specify `yes` to enable the system to send a trap.

Usage Valid values are as follows:

- `yes`—Enables trap generation.
- `no` (the default)—Disables trap generation.

Example `set ascend-sw-mismatch-trap-enabled = yes`

Location `TRAP`

ase-tag

Description Specifies the Open Shortest Path First (OSPF) autonomous system external (ASE) tag for the link. The tag is attached to each external route.

The `ase-tag` setting is not used by the OSPF protocol itself. Area border routers (ABRs) can use it to filter a record.

Usage Specify a 32-bit hexadecimal number. The default is `c0:00:00:00`.

Example `set ase-tag = c8000000`

```
CONNECTION:ip-options:ospf-options
IP-INTERFACE:ospf
IP-ROUTE
```

ase-type

Description Specifies the Open Shortest Path First (OSPF) autonomous system external (ASE) type of the link state advertisement (LSA).

Usage Specify one of the following settings:

- Type-1 (the default)—Specifies a type 1 external metric. This metric is expressed in the same units as the link-state metric.
- Type-2—Specifies a type 2 external metric. This metric is considered larger than any link-state path. Using a type 2 external metric assumes that routing between autonomous systems is the major cost of routing a packet. A type 2 metric eliminates the need for conversion of external costs to internal link-state metrics.

Example `set ase-type = type-1`

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`
`IP-ROUTE`

assign-address

Description Enables or disables dynamic IP address assignment for incoming calls.

Usage Valid values are as follows:

- `yes`—Assigns dynamic IP addresses to incoming calls as required.
- `no` (the default)—Disables dynamic IP address assignment.

Example `set assign-address = yes`

Dependencies The unit must have at least one configured pool of IP addresses. You can configure the pool locally or in RADIUS.

Location `ANSWER-DEFAULTS:ip-answer`

assign-count[*n*]

Description An array of 128 elements, each of which can specify the number of host addresses contained in one IP address pool. For each pool, a contiguous block of addresses must be available, starting with the address you specify by using the `pool-base-address` parameter. The addresses in a pool are available for dynamic assignment to callers.

When specified in a `vrouter` profile, address pools are exclusive to that virtual router. If address pools are not specified in a `vrouter` profile, the virtual router(s) can share the address pools defined in the `ip-global` profile.

Usage For each pool, specify a number from 0 through 65535. The default is 0 (zero).

Example
```
set assign-count 1 = 25
set pool-base-address = 1.1.1.125
```

Location `IP-GLOBAL`
`VROUTER`

assignment-id

Description In a Layer 2 Tunneling Protocol (L2TP) mobile-client profile, this parameter specifies an identification (name) assigned to tunnels to allow grouping sessions. The value has local significance only. It is not transmitted to the remote tunnel end point.

Usage Specify a name of up to 31 characters. The default is null.

Example `set assignment-id = xyzserver`

Dependencies This setting applies only when `tunneling-protocol` is set to `l2tp-protocol` and `profile-type` is set to `mobile-client`.

Location `CONNECTION:tunnel-options`

assign-vpi-vci

Description Specifies whether the virtual path identifier and virtual channel identifier (VPI-VCI) of the signaling virtual channel connection (VCC) is assigned locally or by the remote peer.

Usage Valid values are as follows:

- `yes`—Specifies that the local stack assigns the VPI-VCI. This is the default.
- `no`—Specifies that the remote peer assigns the VPI-VCI

Example `set assign-vpi-vci = yes`

Location `ATM-IF-SIG-PARAMS[`*n*`]:q2931-options`

async-analog-profile

Description Specifies the `connection` profile name for asynchronous framing and analog bearer dial-out request.

Usage Specify an alphanumeric text string of up to 31 characters. The default value is blank.

Example `set async-analog-profile = analog_name`

Location `TUNNEL-SERVER:dialout-options`

async-control-char-map

Description Read-only. A 4-byte (32-bit) field that indicates which of the 32 control codes are not to be sent in the clear.

Usage Read-only parameter consisting of four pairs of hexadecimal digits.

Example `async-control-char-map = 12:34:56:78`

Location `CONNECTION:ppp-options`

async-digital-profile

Description Specifies the `connection` profile name for asynchronous framing and digital bearer dial-out request.

Usage Specify an alphanumeric text string of up to 31 characters. The default value is blank.

Example `set async-analog-profile = analog_name`

Location `TUNNEL-SERVER:dialout-options`

at-answer-string

Description *Not used.*

atm1483type

Description Specifies the multiplexing method for carrying multiple protocols over Asynchronous Transfer Mode (ATM) circuits by means of the ATM adaptation layer 5 (AAL5). When a system transfers user data, the RFC 1483 specification is used to encapsulate the packets over AAL5. RFC 1483 outlines vendor-independent ways of transferring multiprotocol encapsulated packets on the ATM network.

Usage Valid values are as follows:

- `aal5-llc`—Specifies that system identifies the protocols by prefixing the protocol data unit (PDU) with an IEEE 802.2 Logical Link Control (LLC) header. This is the default.
- `aal5-vc`—Specifies that the system performs higher-layer protocol multiplexing by creating separate ATM virtual circuits (virtual circuit multiplexing).

Example `set atm1483type = aal5-vc`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

atm-circuit-profile

Description Specifies the name of a `connection` profile that defines an Asynchronous Transfer Mode (ATM) circuit between a WAN interface and an ATM internal interface. These ATM circuits are used to switch incoming traffic directly from a WAN interface to a module that can process the data stream, such as a router module to route an IP data stream.

Usage Specify the name of a `connection` profile. The default value is an empty string.

Caution Currently, only ISDN digital subscriber line (IDSL) and router modules support ATM internal interfaces. This parameter has meaning in the `atm-options` subprofile only. Although it also appears in the `atm-connect-options` subprofile, the parameter is not used and must be left at the default null value.

Example `set atm-circuit-profile = ckt-7`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

atm-direct-enabled

Description Specifies whether the ATM direct feature is enabled.

Usage Specify one of the following settings:

- `yes`—Specifies that ATM direct is enabled.
- `no`—Specifies that ATM direct is disabled. This is the default value.

Example `set atm-direct-enabled = yes`

Location `CONNECTION:atm-options`

atm-direct-profile

Description Specifies the name of the ATM `connection` profile to be used for the Asynchronous Transfer Mode (ATM) direct connection.

Usage Specify a name of up to 31 characters

Example `set atm-direct-profile = atmdirect`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

atm-enabled

Description Specifies whether Asynchronous Transfer Mode (ATM) is enabled for the connection.

Usage Valid values are as follows:

- `yes`—Specifies that ATM is enabled for the connection. This is the default.
- `no`—Specifies that ATM is not enabled for the connection.

Example `set atm-enabled = no`

Dependencies If the `encapsulation-protocol` parameter in the `connection` profile is not set to `atm` or `atm-circuit`, the value specified by `atm-enabled` does not apply.

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

atm-if-delay

Description Specifies the minimum time in seconds for IMA data cell rate (IDCR) changes between the subsequent ATM layer. This parameter pertains to inverse multiplexing ATM (IMA).

Usage The valid range is from 0 (zero) through 2147483647. The default is 0.

Example `set atm-if-delay = 0`

Location IMAGROUP

atm-ima-alarm-trap-enabled

Description Specifies whether the system sends the inverse multiplexing ATM (IMA) alarm trap (notification) to the identified host.

Usage Specify one of the following values:

- yes—The system sends the IMA alarm trap to the host.
- no (the default)—The system does not send IMA alarm trap to the host.

Example `set atm-ima-alarm-trap-enabled = yes`

Location TRAP

atmp-enabled

Description Indicates the license status for Ascend Tunneling Management Protocol (ATMP) tunnel protocol.

Usage Read-only parameter with possible values as follows:

- yes—ATMP tunnel protocol is enabled.
- no—ATMP tunnel protocol is not enabled.

Example `atmp-enabled = yes`

Location BASE

atmp-ha-rip

Description In an Ascend Tunnel Management Protocol (ATMP) Home Agent gateway profile, this parameter enables or disables construction of mobile-client routes in RIP-v2 responses to the home router. When this feature is enabled, the Home Agent informs the home router about routes to its mobile clients and saves the home router from maintaining a static route for each ATMP mobile client.

This feature also provides the basis for a resilient configuration, in which a secondary Home Agent can take over for a primary Home Agent if the primary agent becomes unavailable.

Usage Valid values are as follows:

- `rip-off` (the default)—Does not construct routes to mobile clients by using RIP.
- `rip-send-v2`—Sends the home router RIP-v2 response packets specifying mobile-client routes. The routes specify a mobile-client IP address and subnet mask, with the next hop set to 0.0.0.0 and the metric set to 1.

Example `set atmp-ha-rip = rip-send-v2`

Dependencies Consider the following:

- This parameter does not apply unless `profile-type` is set to `gateway-profile`.
- The `ip-options rip` parameter must be set to `routing-off` so that the home router does not send RIP updates to the Home Agent, which does not inspect them. Otherwise, RIP updates are forwarded, incorrectly, to the mobile clients.

Location `CONNECTION:tunnel-options`

atmp-sap-reply

Description *Not supported.* Enables or disables a Home Agent's ability to reply to an IPX Nearest Server query.

Location `ATMP`

atmp-snmp-trap

Description Enables or disables the following SNMP traps for the Ascend Tunnel Management Protocol (ATMP):

- `atmpMaxTunnelExceeded` (27)—Generated when the number of tunnels to a home network exceeds the maximum value.
- `atmpAgentErrorSen` (28)—Generated when errors have occurred at the agent level or with tunnel creation and are sent to the peer agent.
- `atmpAgentErrorRecvTrap` (29)—Generated when errors are received from the peer agent.

Usage Specify `yes` or `no`. The default value is `no`.

- `yes`— Enables ATMP SNMP traps.
- `no`—Does not enable ATMP SNMP traps.

Example `set atmp-snmp-trap = yes`

Location `ATMP`

atm-pvc-failure-trap-enabled

Description Specifies whether the system sends the permanent virtual circuit (PVC) or soft PVC (SPVC) failure trap (notification) to the identified host.

Usage Specify one of the following values:

- `yes`—The system sends the PVC or soft PVC failure trap to the host.
- `no` (the default)—The system does not send the PVC or soft PVC failure trap to the host.

Example `set atm-pvc-failure-trap-enabled = yes`

Location `TRAP`

atm-service-category

Description Specifies the Asynchronous Transfer Mode (ATM) service class for the quality of service (QoS) contract. Also referred to as ATM service category.

Usage Valid values are as follows:

- `cbr`—Specifies constant bit rate, a service class for connections that depend on precise clocking to ensure undistorted delivery of bits. This is the default.
- `vbr-rt`—Specifies variable bit rate-real time a service class that handles the packaging of special delay-sensitive applications (such as packet video) that require low cell-delay variation between endpoints.
- `vbr-nrt`—Specifies a service class that handles packaging for the transfer of long, bursty data streams over a pre-established ATM connection.
- `ubr`—Specifies unspecified bit rate, a service class that handles bursty LAN traffic, as well as data that accepts delays and cell loss. It is a best-effort service that does not specify bit rates or traffic values, and offers no QoS guarantees.

Example `set atm-service-category = ubr`

Dependencies If `encapsulation-protocol` is not set to `ATM` or `ATM-Circuit`, `atm-service-category` does not apply.

Location `ATM-QOS`

attenuation-down

Description Read-only. Indicates the current downstream attenuation in decibels. Use this parameter to check the decrease in power of the signal in the downstream communication.

Usage The `attenuation-down` value is read-only.

Example `attenuation-down = 6`

Location `AL-DMT-STAT:physical-statistic`

attenuation-up

Description Read-only. Indicates the current upstream attenuation in decibels. Use this parameter to check the decrease in power of the signal in the upstream communication.

Usage The `attenuation-up` value is read-only.

Example `attenuation-up = 41`

Location `AL-DMT-STAT:physical-statistic`

atuc-15min-ess

Description Specifies the number of errored seconds encountered by a DSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification (trap) is sent

Usage One notification is sent per interval per interface. A value of zero (0) disables the notification. Enter a value from 0 through 900.

Example **`set atuc-15min-ess = 10`**

Location `DSL-THRESHOLD`

atuc-15min-lofs

Description Specifies the number of loss-of-frame seconds encountered by a DSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification (trap) is sent.

Usage One notification is sent per 15 minute interval per interface. A value of 0 disables the trap. Enter a value from 0 through 900.

Example **`set atuc-15min-lofs = 10`**

Location `DSL-THRESHOLD`

atuc-15min-lols

Description Specifies the number of loss-of-link seconds encountered by a DSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification (trap) is sent.

Usage One notification is sent per interval per interface. A value of 0 disables the notification. Enter a value from 0 through 900.

Example **`set atuc-15min-lols = 20`**

Location `DSL-THRESHOLD`

atuc-15min-loss

Description Specifies the number of loss-of-signal-seconds encountered by a DSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification (trap) is sent.

Usage One notification is sent per 15-minute interval per interface. A value of 0 disables the trap. Enter a value from 0 through 900.

Example `set atuc-15min-loss = 28`

Location DSL-THRESHOLD

atuc-15min-lprs

Description Specifies the number of loss-of-power seconds encountered by a DSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification (trap) is sent

Usage One notification is sent per interval per interface. A value of 0 disables the notification. Enter a value from 0 through 900.

Example `set atuc-15min-lprs = 10`

Location DSL-THRESHOLD

atuc-fast-rate-down

Description Specifies the amount of change in rate of a fast channel that must occur to cause a notification (trap) to be sent. A notification is produced when the value of `atuc-fast-rate-down` exceeds the value of an internal parameter based on the channel rate down.

Usage Enter a value from zero (0) through 2147483647. A value of 0 disables the trap.

Example `set atuc-fast-rate-down = 0`

Location DSL-THRESHOLD

atuc-fast-rate-up

Description Specifies the amount of change in rate of a fast channel that must occur to cause a notification (trap) to be sent. A notification is produced when the value of `atuc-fast-rate-up` exceeds the value of an internal parameter based on the channel rate up.

Usage Enter a value from 0 through 2147483647. A value of 0 disables the trap.

Example `set atuc-fast-rate-up = 0`

Location DSL-THRESHOLD

atuc-init-failure-trap

Description Enables/disables InitFailureTrap.

Usage Specify enable or disable.

Example `set atuc-init-failure-trap = disable`

Location DSL-THRESHOLD

atuc-interleave-rate-up

Description Specifies the amount of change in rate of an interleaved channel that must occur to cause a notification (trap) to be sent. A notification is produced when the value of `atuc-interleave-rate-up` exceeds the value of an internal parameter based on the channel rate up.

Usage Enter a value from zero (0) through 2147483647. A value of 0 disables the trap.

Example `set atuc-interleave-rate-up = 0`

Location DSL-THRESHOLD

atuc-interleave-rate-down

Description Specifies the amount of change in rate of an interleaved channel that must occur to cause a notification (trap) to be sent. A notification is produced when the value of `atuc-interleave-rate-down` exceeds the value of an internal parameter based on the channel rate down.

Usage Enter a value from zero (0) through 2147483647. A value of 0 disables the trap.

Example `set atuc-interleave-rate-down = 0`

Location DSL-THRESHOLD

atu-r

Description Read-only. Indicates the results of the ADSL transceiver unit-remote (ATU-R) test.

Usage Read-only parameter with the following values:

- `no`—ATU-R is not present.
- `yes`—ATU-R is present.

Example `atu-r = yes`

Dependencies This test is valid only for ADSL line interface modules (LIMs).

Location CLT-RESULT

atur-15min-ess

Description Specifies the number of errored seconds encountered by a remote ADSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification is sent.

Usage One notification is sent per interval per interface. A value of zero (0) disables the notification. Enter a value from 0 through 900.

Example `set atur-15min-ess = 10`

Location DSL-THRESHOLD

atur-15min-lofs

Description Specifies the number of loss-of-frame seconds encountered by a remote ADSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification is sent.

Usage One notification is sent per 15-minute interval per interface. A value of 0 disables the trap. Enter a value from 0 through 900.

Example `set atur-15min-lofs = 10`

Location DSL-THRESHOLD

atur-15min-loss

Description Specifies the number of loss-of-signal-seconds encountered by a remote ADSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification is sent.

Usage One notification is sent per 15-minute interval per interface. A value of 0 disables the trap. Enter a value from 0 through 900.

Example `set atur-15min-loss = 28`

Location DSL-THRESHOLD

atur-15min-lprs

Description Specifies the number of loss-of-power seconds encountered by a remote ADSL interface within any given 15-minute data collection period before a Simple Network Management Protocol (SNMP) notification is sent

Usage One notification is sent per interval per interface. A value of 0 disables the notification. Enter a value from 0 through 900.

Example `set atur-15min-lprs = 10`

Location DSL-THRESHOLD

atur-fast-rate-down

Description Specifies the decrease in rate of a fast channel that will cause a trap to be sent.

Usage Specify a value from 0 to 4294967295. A value of 0 disables the trap.

Example `set atuc-fast-rate-down = 0`

Dependencies This parameter applies to fast channels only.

Location DSL-THRESHOLD

atur-fast-rate-up

Description Specifies the increase in rate of a fast channel that will cause a trap to be sent.

Usage Specify a value from 0 to 4294967295. A value of 0 disables the trap.

Example `set atuc-fast-rate-up = 0`

Dependencies This threshold applies to fast channels only.

Location DSL-THRESHOLD

atur-interleave-rate-down

Description Specifies the decrease in rate of an interleaved channel that will cause a trap to be sent.

Usage Specify a value from 0 to 4294967295. A value of 0 disables the trap.

Example `set atur-interleave-rate-down = 0`

Dependencies This parameter applies to interleaved channels only.

Location DSL-THRESHOLD

atur-interleave-rate-up

Description Specifies the increase in rate of an interleaved channel that will cause a trap to be sent.

Usage Specify a value from 0 to 4294967295. A value of 0 disables the trap.

Example `set atur-interleave-rate-up = 0`

Dependencies This parameter applies to interleaved channels only.

Location DSL-THRESHOLD

audit-user-profiles

Description Enables/disables system monitoring of `user` profiles for expired passwords or user accounts.

Usage Valid values are as follows:

- `yes`—Enables the system to audit `user` profiles for expired passwords and user accounts. If a user account is expired, the system disables that account and terminates any active user sessions. A user with an expired account is denied access to the system.
- `no` (the default)—Disables auditing of `user` profiles for expired passwords or user accounts.

Example `set audit-user-profiles = yes`

Dependencies If the `audit-user-profiles` parameter is set to `yes`, by default, a user account expires after three years and a password expires after 60 days.

Note The system-generated `user` profile `admin` and its password do not expire. Users with `Admin` privileges can modify user account and password expiration dates.

Location `SYSTEM`

auth-attribute-type

Description Specifies the attribute(s) used for session matching.

Usage Valid values are as follows

- `rad-serv-attr-any`—Specifies that the first Remote Authentication Dial-In User Service (RADIUS) attribute is used for session matching. This is the default.
- `rad-serv-attr-key`—Specifies that the session key is used for session matching.
- `rad-serv-attr-all`—Specifies that all attributes must match for session matching.

Example `set auth-attribute-type = rad-serv-attr-any`

Dependencies If the `rad-serv-enable` parameter in the `external-auth` profile is set to `no`, `auth-attribute-type` does not apply.

Location `EXTERNAL-AUTH:rad-auth-server`

auth-boot-host

Description Specifies the IP address of the authentication boot host.

Usage Specify the IP address in dotted decimal notation.

Example `set auth-boot-host = 10.2.3.4`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-boot-host-2

Note This setting is for a customer-specific application outside of the United States. It is not intended for general use.

Description Specifies the IP address of the secondary RADIUS server to which ZGR answer-number requests, subaddress requests, and external-configuration requests are sent. External-configuration requests include requests for banner configurations, IP address pools, frame relay link configurations, dial-out profiles, answer numbers, ZGR answer numbers, and dial-out routes.

Usage Specify an IP address in dotted decimal notation. The default is `0.0.0.0`.

Example `set auth-boot-host-2 = 200.54.6.79`

Dependencies For `auth-boot-host-2` to apply, you must set `auth-type` to `radius`.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-boot-port

Description Specifies the user datagram protocol (UDP) port to use for RADIUS authentication.

Usage Specify a number between zero (0) and 65535.

Example `set auth-boot-port = 1111`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-client *n*

Description Specifies up to nine IP addresses of Remote Authentication Dial-In User Service (RADIUS) clients permitted to issue RADIUS commands for session termination and filter changes.

Usage Specify an IP address in dotted decimal notation. The address 255.255.255.255 indicates that any client can issue RADIUS commands. (Currently, a maximum of nine clients is supported.) The default is 0.0.0.0, which indicates that no client can issue RADIUS commands.

Example `set auth-client 1 = 10.2.3.4`

Dependencies If the `rad-serv-enable` parameter in the `external-auth` profile is set to `no`, `auth-client n` does not apply. In addition, if you do not use `auth-netmask n` to supply a subnet mask, the system supplies a default subnet mask based on the address class.

Location `EXTERNAL-AUTH:rad-auth-server`

auth-cli-user-dnis

Description Specifies a pseudo-dialed number identification service (DNIS) number for Telnet command-line interface users that need to be authenticated by the RADIUS server.

Specifying a value for this parameter enables a unit to use the DNIS number as a proxy to send access requests to a RADIUS server that holds the Telnet user accounts.

Usage Specify an integer of up to 40 characters.

- If the value is not null, the number is sent to RADIUS in Access Request packets as the DNIS attribute `Called-Station-Id`.
- If the value of `auth-cli-user-dnis` is null, `Called-Station-Id` is not sent.

Example `set auth-cli-user-dnis = 5051`

Dependencies The `auth-cli-user-dnis` value applies only when the `cli-user-auth` parameter is not set to `local-only`.

Location `EXTERNAL-AUTH:rad-auth-client`

authen-key

Description Specifies an authentication key that appears in Open Shortest Path First (OSPF) virtual link configurations. The value of `authen-key` is a 64-bit clear password inserted into the OSPF packet header. It is used between two OSPF virtual link routers for authenticating traffic in the router's area.

Usage Specify a string of up to eight characters.

Example `set authen-key = lucospf2`

Dependencies `authen-key` does not apply if `authen-type` is set to `none`.

Location `OSPF-VIRTUAL-LINK`

authentication-enabled

Description Specifies whether the system generates a notification (trap) when an authentication failure occurs.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when an authentication failure occurs. This is the default.
- `no`—Specifies that the system does not generate a trap when an authentication failure occurs.

Example `set authentication-enabled = no`

Location `TRAP`

authen-type

Description Specifies the type of authentication to use for validating Open Shortest Path First (OSPF) packet exchanges.

Usage Specify one of the following settings:

- `none`—Specifies that routing exchanges are not authenticated. The 64-bit authentication field in the OSPF header can contain data, but it is not examined on packet reception. When you use this setting, the Stinger unit performs a checksum on the entire contents of each OSPF packet (other than the 64-bit authentication field) to ensure against data corruption.
- `simple`—Requires that you specify a 64-bit value for `auth-key`. Each packet sent on a particular network must have the configured value in its OSPF header's 64-bit authentication field. Simple authentication is designed to prevent configuration errors from affecting the OSPF routing database. It is not designed for firewall protection. This is the default.
- `md5`—Specifies that the Stinger unit validates OSPF packet exchanges by using MD5 encryption and an authentication key ID that you specify by means of the `key-id` setting. Packets must contain the specified value in the OSPF header Key ID field to be allowed into the router's OSPF area.

Example `set authen-type = md5`

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`
`OSPF-VIRTUAL-LINK`

auth-frm-adr-start

Description Specifies whether to send a second RADIUS Accounting Start record when the RADIUS `Framed-Address` value is assigned.

Usage Valid values are as follows:

- `yes`—Enables the Stinger unit to send a second RADIUS Accounting Start record when the RADIUS `Framed-Address` value is assigned.
- `no`—Prevents the Stinger unit from sending a second RADIUS Accounting Start record. This is the default.

Example `set auth-frm-adr-start = yes`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-id-fail-return-busy

Description Specifies whether the Stinger unit returns `user busy` (decimal 17) or `normal call clearing` (decimal 16) as the cause element in ISDN Disconnect packets when calling line ID (CLID) or called-number authentication fails.

Usage Specify one of the following settings:

- `yes`—Specifies that the Stinger unit returns `user busy` (decimal 17) when CLID or called-number authentication fails.

- `no`—Specifies that the Stinger unit returns `normal call clearing` (decimal 16) when CLID or called-number authentication fails. This is the default.

Example `set auth-id-fail-return-busy = yes`

Dependencies For `auth-id-fail-return-busy` to apply, you must set `auth-type` to `radius`.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-id-max-retry-time

Description Specifies the maximum time limit for retrying RADIUS servers during the process of ID authentication.

Usage Specify a number between zero (0) and 10. A value of 0 sets the limit to the internal default value.

Example `set auth-id-max-retry-time = 0`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-id-timeout-return-busy

Description Specifies whether the Stinger unit returns User Busy (decimal 17) or Normal Call Clearing (decimal 16) as the Cause Element in ISDN Disconnect packets when called line ID (CLID) or dialed number identification service (DNIS) times out.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit returns User Busy (decimal 17) when CLID or called-number authentication times out.
- `no`—Specifies that the Stinger unit returns Normal Call Clearing (decimal 16) when CLID or called-number authentication times out. This is the default.

Example `set auth-id-timeout-return-busy = yes`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-keep-user-name

Description Specifies how to handle the RADIUS `User-Name` attribute.

Usage Valid values are as follows:

- `change-name`—Specifies that the name provided by the server is used for the status display and for RADIUS accounting purposes. This is the default.
- `keep-name`—Specifies that the Stinger unit does not use the username returned by the server. If a name has been specified—that is, if called line ID (CLID) or dialed number identification service (DNIS) authentication is not used—the system uses that name. Otherwise, the system uses the name sent to the server for authentication.

- keep-realm-name—Specifies that if the username sent to the server for authentication is in a *realm*, the system behaves as if auth-keep-user-name is set to keep-name. (For example, if the username contains one of the characters @,\,/, or %, the username is in a realm.) Otherwise, the system behaves as if change-name is specified.

Note A user authenticated by called line ID (CLID) or dialed number identification service (DNIS) will appear to have the CLID or DNIS number as his or her username. If this condition is a problem, set auth-keep-user-name to keep-realm-name.

Example `set auth-keep-user-name = keep-name`

Location EXTERNAL-AUTH:rad-auth-client

auth-key

Description Specifies an authentication key that appears in Open Shortest Path First (OSPF), SNMPv3 user-based security model (USM), and external authentication configurations:

- For OSPF, the value of auth-key is a 64-bit clear password inserted into the OSPF packet header. It is used by OSPF routers for authenticating traffic in the router's area.
- For SNMPv3 USM configurations, auth-key is an authentication key generated by the snmpAuthPass command.
- For RADIUS, the auth-key value is a string of up to 22 characters. Because the Stinger unit can act both as a client to external servers and as a server responding to client commands, you can set auth-key in both the rad-auth-client and rad-auth-server subprofiles.

Usage The value you specify depends upon your configuration:

- For OSPF, specify a string of up to nine characters. The default is ascend0.
- For RADIUS, specify up to 22 characters. The default is null. For security purposes, the string is hidden when auth-key is displayed. If you specify a null value, the system logs the following warning:

  ```
  warning: auth-key is empty (bad for security)
  ```

- For most SNMPv3 USM configurations, do not set the string directly. Instead, use the snmpAuthPass command to generate the value. If you have permission to view passwords, the authentication key appears as a string with escape sequences for save and restore purposes. Otherwise, the authentication key appears as a row of asterisks. The default is null.

Example Suppose you use the snmpAuthPass command to generate the following 16-byte string for an SNMPv3 USM configuration:

```
27 0a dc 75 f8 98 e5 7c 4c 03 22 7d dd ac 0d ef
```

The system displays this value as the following auth-key value:

```
'\x0a\xdcu\xf8\x98\xe5|L\x03"}\xdd\xac\x0d\xef
```

Dependencies Consider the following:

- For OSPF routing, auth-key does not apply if authen-type is set to none.

- For `auth-key` to apply in a RADIUS configuration, you must set `auth-type` to `radius`.
- For SNMPv3 USM configurations, `auth-key` does not apply if `auth-protocol` is set to `no-auth`.
- You must generate the authentication key by means of the `snmpAuthPass` command before the `snmpv3-usm-user` profile can be used for communication with the SNMP manager.
- If you change the authentication protocol from message-digest algorithm 5 (MD5) to secure hash algorithm (SHA) (or vice versa) for an SNMPv3 USM configuration, you must change the authentication key by means of the `snmpAuthPass` command. The previous protocol-and-key combination is used until you specify a new one.
- If you change the value of `auth-key` directly for SNMPv3 USM, keep in mind that the length of the escape sequence must be 10 (16D in hexadecimal) if MD5 is in use and 14 (20D in hexadecimal) if SHA is in use. If you specify an invalid value, the unit uses the previous key, if one exists, to communicate with the SNMP manager. If no previous key exists, this USM user cannot communicate with the network until a valid key is set by means of the `snmpAuthPass` command.

Location `CONNECTION:ip-options:ospf-options`
`EXTERNAL-AUTH:rad-auth-client`
`EXTERNAL-AUTH:rad-auth-server`
`IP-INTERFACE:ospf`
`SNMPV3-USM-USER`

auth-netmask *n*

Description Specifies up to nine subnet masks. The Stinger unit matches each mask to the IP addresses of a Remote Authentication Dial-In User Service (RADIUS) client permitted to issue RADIUS commands for session termination and filter changes.

Usage Specify a subnet mask in dotted decimal notation. The default is 0.0.0.0.

Example `set auth-netmask 1 = 255.255.255.248`

Dependencies If the `rad-serv-enable` parameter is set to `no`, or if no `auth-client` *n* setting specifies an IP address, `auth-netmask n` does not apply.

Location `EXTERNAL-AUTH:rad-auth-server`

auth-pool

Description Enables or disables allocation of an IP address from the default pool.

Usage Select one of the following values:

- `yes`—Enables allocation of IP address from the pool. Address is passed to the RADIUS server.
- no—Disables allocation of IP addresses from the pool. This is the default.

Example `set auth-pool = yes`

Location EXTERNAL-AUTH:rad-auth-client

auth-pool-add

Description Internal field, not settable from user interface.

Usage Read-only IP address or netmask field.

Example auth-pool-add = 192.207.23.13

Location CONNECTION:ip-options

auth-port

Description Specifies the UDP port to use for communication with the external authentication server. The value you specify must match the port specified for use in the server's configuration.

Usage Specify the UDP destination port to use for authentication. The default UDP port used by the RADIUS daemon is specified in the /etc/services file (UNIX).

Example **set auth-port = 1565**

Location EXTERNAL-AUTH:rad-auth-client
EXTERNAL-AUTH:rad-auth-server
EXTERNAL-AUTH:tac-auth-client
EXTERNAL-AUTH:tacplus-auth-client

auth-protocol

Description Specifies authentication of messages sent on behalf of this user to or from the Simple Network Management Protocol (SNMP) engine and, if enabled, the type of authentication protocol to be used.

Usage Valid values are as follows:

- no-auth—Disables authentication for this user.
- md5-auth—Enables authentication and specifies that the message-digest algorithm 5 (MD5) must be used. This is the default.
- sha-auth—Enables authentication and specifies that the secure hash algorithm (SHA) must be used.

Example **auth-protocol = md5-auth**

Dependencies If this parameter is set to a value other than no-auth, the password parameter must specify the password to be used.

Location SNMPV3-USM-USER

auth-radius-compat

Description Enables or disables vendor-specific attribute (VSA) compatibility mode when the Stinger unit is using RADIUS for authentication and authorization purposes.

Usage Valid values are as follows:

- `old-ascend`—The Stinger unit does not send the vendor-specific attribute to the RADIUS server and does not recognize the vendor-specific attribute if the server sends it. This is the default.
- `vendor-specific`—The Stinger unit uses the vendor-specific attribute to encapsulate Lucent vendor attributes, and uses the RFC-defined User-Password encryption algorithm as well.

Example `set auth-radius-compat = vendor-specific`

Location `EXTERNAL-AUTH:rad-auth-client`
`EXTERNAL-AUTH:rad-auth-server`

auth-realm-delimiters

Description Specifies the characters that delimit a realm from the username.

Usage Specify up to seven characters in any order. The default is `@\/%`. If you do not specify any characters, the system behaves as though `auth-keep-user-name` is set to `change-name`.

Example `set auth-realm-delimiters = "%"`

Dependencies The `auth-realm-delimiters` setting does not apply unless `auth-keep-user-name` is set to `keep-realm-name`.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-req-delim-count

Description Specifies the number of delimiters to strip from a username in a RADIUS authentication request.

Usage Specify a number between zero (0) and 65535. The default is 0.

Example `set auth-req-delim-count = 2`

Dependencies You must be sure that the delimiters to strip are specified in the `auth-realm-delimiters` parameter.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-req-strip-side

Description Specifies the side from which to strip characters in a username of a RADIUS authentication request.

Usage Valid values are as follows:

- `none` (the default)—Does not strip characters from a username.
- `left`—Strips characters from the left side of the username.
- `right`—Strips characters from the right side of the username.

Example `set auth-req-strip-side = left`

Dependencies The `auth-req-delim-count` value must be greater than zero (0) for this parameter to take effect.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-reset-time

Description Specifies the authentication-timeout period, in seconds, after which the Stinger unit returns to the primary RADIUS authentication server. (The `auth-server-`*n* setting specifies the primary RADIUS authentication server.)

Usage Specify the number of seconds. The default is 0 (zero), which specifies that the Stinger unit does not return to using the primary RADIUS authentication server.

Example `set auth-reset-time = 60`

Dependencies For `auth-reset-time` to apply, you must specify at least one value for `auth-server-`*n*.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-retries

Description Specifies the number of times the Stinger unit attempts to connect to a backup TACACS+ server.

Usage Specify a number. The 0 (zero) default specifies that the Stinger unit does not attempt to connect to a backup TACACS+ server.

Example `set auth-retries = 2`

Dependencies For `auth-retries` to apply, you must set `auth-type` to `tacacsplus`.

Location `EXTERNAL-AUTH:tacplus-auth-client`

auth-rsp-required

Description Specifies how the Stinger unit responds if an authentication request times out after a call has passed calling line ID (CLID) authentication.

Usage Specify one of the following settings:

- `yes` (the default)—Specifies that the Stinger unit drops calls that have passed CLID authentication.
- `no`—Specifies that the Stinger unit allows CLID-authenticated connections even if there is no response form the external server.

Example `set auth-rsp-required = yes`

Dependencies For `auth-rsp-required` to apply, CLID authentication must be in use, `clid-auth-mode` must be set to `required`, and `auth-type` must be set to `radius`.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-send67

Description Specifies whether the Stinger unit requires Remote Authentication Dial-In User Service (RADIUS) attributes 6 (User-Service) and 7 (Framed-Protocol) in a RADIUS user profile when a user wants to initiate PPP.

Usage Valid values are as follows:

- `yes`—Specifies that if a user wants to initiate PPP, his or her RADIUS profile must include attributes 6 and 7.
- `no`—Specifies that attributes 6 and 7 need not be present in a RADIUS user profile for a user to initiate PPP. This is the default.

Example `set auth-send67 = yes`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-server-*n*

Description Specifies the IP addresses of up to three external authentication servers.

The Stinger unit first tries to connect to server 1. If it receives no response, it tries to connect to server 2. If the Stinger unit still receives no response, it tries server 3. A Stinger unit that connects to a server other than server 1 continues to use that server until it fails to service requests, even if server 1 has come back online.

Usage Specify an IP address in dotted decimal notation, separating the optional subnet mask value from the address with a forward slash (\). The addresses must all point to servers of the same type, as specified by the `auth-type` setting. The default is 0.0.0.0, which indicates that no authentication server exists.

Example `set auth-server-1 = 10.2.3.4/24`

Location `EXTERNAL-AUTH:rad-auth-client`
`EXTERNAL-AUTH:tac-auth-client`
`EXTERNAL-AUTH:tacplus-auth-client`

auth-sess-interval

Description Specifies the number of seconds between RADIUS authentication reports concerning the number of open sessions.

Usage Specify a number of seconds from 0 through 65535. The 0 (zero) default turns off regular RADIUS open-session reports.

Example `set auth-sess-interval = 15`

Dependencies For `auth-sess-interval` to apply, you must set `auth-type` to `radius`.

Location `EXTERNAL-AUTH:rad-auth-client`

auth-session-key

Description Specifies whether session-key assignments are enabled.

Usage Valid values are as follows:

- `yes`—Specifies that session-key assignments are enabled.
- `no`—Specifies that session-key assignments are disabled. This is the default.

Example `set auth-session-key = no`

Dependencies If `rad-serv-enable` is set to `no`, `auth-session-key` does not apply.

Location `EXTERNAL-AUTH:rad-auth-server`

auth-src-port

Description Specifies the UDP source port to use for external authentication.

The Stinger unit uses the source port number to demultiplex the RADIUS reply packets to the appropriate modules. A separate source port is used for each module. On the Stinger unit, the actual source port is the value of `auth-src-port` plus the slot number, where the control module has a slot number of 0 (zero). So, if `auth-src-port` is set to 1000, packets originating from the control module have a source port value of 1000, while packets originating from slot 6 have a source port value of 1006.

Usage Specify a value from 0 to 65535. The default is 0 (zero), which specifies that the source port is selected from the nonprivileged port range (1024 through 2000).

Example `set auth-src-port = 9000`

Location `EXTERNAL-AUTH:rad-auth-client`
`EXTERNAL-AUTH:tac-auth-client`
`EXTERNAL-AUTH:tacplus-auth-client`

auth-timeout

Description Specifies the number of seconds between attempts to reach an external authentication server.

The Stinger unit waits the specified number of seconds for a response to a RADIUS authentication request. If the Stinger unit does not receive a response within that time, it times out and sends the authentication request to the next authentication server (for example, `auth-server-2`).

Usage Specify an integer from 1 to 10. The default is 1 for a RADIUS request.

Example `set auth-timeout = 5`

Dependencies If `auth-type` is set to `none`, the `auth-timeout` parameter value does not apply.

Location `EXTERNAL-AUTH:rad-auth-client`
`EXTERNAL-AUTH:tac-auth-client`

auth-timeout-time

Description Specifies the number of seconds that must elapse before the Stinger unit attempts to connect to a backup TACACS+ server.

Usage Specify the number of seconds. The `0` (zero) default specifies that the Stinger unit does not attempt to use a backup TACACS+ server.

Example `set auth-timeout-time = 60`

Dependencies For `auth-timeout-time` to apply, you must set `auth-type` to `tacacsplus`.

Location `EXTERNAL-AUTH:tacplus-auth-client`

auth-ts-secure

Description Specifies security access to the terminal-server interface when the RADIUS `Login-IP-Host (14)` value is not specified.

Usage Valid values are as follows:

- `yes`—Specifies that the terminal-server must be secure. If the `Login-IP-Host` is not specified, the Stinger unit drops the call. This is the default.
- `no`—Specifies that if the `Login-IP-Host` is not specified, the Stinger unit allows the dial-in connection to access the terminal-server interface.

Example `set auth-ts-secure = yes`

Location `EXTERNAL-AUTH:rad-auth-client`

auth-type

Description Specifies the type of external authentication server to access for incoming connections.

Usage Valid values are as follows:

- `none`—Disables the use of an authentication server. This is the default.
- `radius`—Specifies that the Stinger unit accesses a RADIUS server. In a RADIUS query, the Stinger unit provides a user ID and password to the server. If the validation succeeds, the server sends back a complete profile. The profile specifies routing, destination-specific static routes, and usage restrictions for the user. RADIUS supports Password Authentication Protocol (PAP) and Challenge Handshake Authentication Protocol (CHAP), and terminal-server validation.
- `radius/logout`—Identical to `radius`, except that when you select `radius/logout`, the Stinger unit sends a request to the RADIUS server to initiate logout when the session ends.

Example `set auth-type = radius`

Dependencies If `auth-type` is set to a value other than `none`, you must specify at least one authentication server address.

Location `EXTERNAL-AUTH`

auto-base-rate

Description Specifies the initial rate at which the SDSL LIMs train, in kilobytes per second.

Usage Specify one of the following rates:

144000
272000 (the default)
400000
528000
784000
1168000
1552000
2320000

Example `set auto-base-rate = 272000`

Dependencies This parameter is ignored if `data-rate-mode` is set to `fastautobaud`.

Location `SDSL:line-config`

auto-correction-enable

Description Specifies whether autocorrections for this line interface module (LIM) are enabled or disabled.

Usage Valid values are as follows:

- no—Specifies that the LIM attempts to correct problems every few hours automatically.
- yes—Specifies that the LIM uses the interval-auto-correction parameter to determine how often to correct itself. This is the default.

Example `set auto correction-enable = yes`

Location SYSTEM-INTEGRITY:integrity-config

auto-logout

Description Specifies whether to log off the current user profile and go back to default privileges upon loss of a Data Transmit Ready (DTR) signal from the serial port.

Usage Valid values are as follows:

- yes—Specifies that the Stinger unit automatically logs off the current user profile if DTR is lost on the serial port.
- no—Specifies that the current user profile remains logged in. This is the default.

Example `set auto-logout = yes`

Location SERIAL

auto-negotiate

Description Enables or disables negotiation by the LAN interface of its own operating speed and duplex mode.

Usage Valid values are as follows:

- yes—The interface determines the appropriate operating speed and duplex mode by using the autonegotiation protocol.
- no—The duplex-mode and media-speed-mbit settings determine operating speed and mode of the interface. This is the default.

Example `set auto-negotiate = yes`

Location ETHERNET

auto-profile

Description Specifies whether the automatic creation of an accessory profile for ATM termination and the ATM circuit is enabled or disabled when the LAN session is established on an IDSL line interface module (LIM).

When PPP transparent circuit or frame relay circuit encapsulation is configured for `connection` profiles assigned to the Stinger unit IDSL LIM, the accessory profiles for ATM termination and the ATM circuit are *automatically* created by the system when the LAN session is established on the interface.

The accessory profiles are automatically created with the station name set to the station name of the parent PPP transparent circuit or frame relay circuit `connection` profile. The suffix *_SYXA* is added to the name of the accessory ATM termination profile, and the suffix *_SYXC* is added to the name of the ATM circuit profile.

Usage Valid values are as follows:

- `yes`—Specifies that automatic profile creation is enabled. This is the default.
- `no`—Specifies that automatic profile creation is disabled.

Example `set auto-profile = no`

Dependencies The ATM termination profile can be either ATM encapsulation or ATM frame relay circuit encapsulation. For automatic profiles, if the parent profile (which is the profile configured for PPP transparent circuit or frame relay circuit encapsulation), is modified or deleted, then the accessory profiles are deleted, if they exist.

Note A convenient way to delete the accessory profiles without deleting the parent profile is to set `auto-profile` to `no` while the parent profile is active.

Location `CONNECTION`

auto-telnet

Description *Not used.*

auto-update

Description Specifies whether regular successful Domain Name System (DNS) queries update the local DNS table. You can use this feature to build a DNS table stored in local RAM, to be used if DNS servers become unavailable.

When this feature is enabled and a DNS query succeeds, the system performs a lookup on that hostname in the local table. If no entry exists for the hostname, the entry's IP address (or multiple addresses) is replaced by the query response. The number of addresses added to the table depends on the `dns-list-attempt` and `dns-list-size` settings.

Usage Valid values are as follows:

- `yes`—Enables the `auto-update` feature for the DNS local table.
- `no`—Disables `auto-update`. The contents of the local DNS table are not affected by successful DNS queries. This is the default.

Example `set auto-update = yes`

Dependencies The `dns-list-attempt` and `dns-list-size` settings affect how the table is updated when `auto-update` is set to `yes`.

If `dns-list-attempt` is set to `yes`, a successful DNS query returns the number of addresses it finds for the host, up to the value of `dns-list-size`. In the DNS table in RAM, those addresses are stored, overwriting the configured address or the addresses retrieved from earlier DNS queries. If the table in RAM contains more addresses than `dns-list-size` specifies, the excess addresses are cleared at each update to prevent the accumulation of stale addresses.

Location `IP-GLOBAL:dns-local-table`

aux-send-password

Description Specifies the password the Stinger unit sends when it adds channels to a Multilink Protocol Plus™ (MP+) call that uses PAP-Token-CHAP authentication. The unit obtains authentication of the first channel of the MP+ call from the user's hand-held security card.

Usage Enter the same password specified by `Ascend-Receive-Secret` in the RADIUS user profile for the Stinger unit.

Example `set aux-send-password = unit0`

Dependencies For `aux-send-password` to apply, the call must use MP+.

Location `CONNECTION:mpp-options`

avcr-mt

Description Specifies the minimum threshold, expressed as a percentage, used in the algorithms that determine significant change for available cell rate (AvCR) parameters.

Usage Specify a percentage. The default is 3 percent.

Example `set avcr-mt = 3`

Location `PNNI-NODE-CONFIG:node-timer`

avcr-pm

Description Specifies the proportional multiplier, expressed as a percentage, used in the algorithms that determine significant change for available cell rate (AvCR) parameters—for example, increase by 50 percent, or decrease by 50 percent.

Available cell rate specifications use a proportional multiplier.

Usage Specify a percentage. The default is 50 percent.

Example `set avcr-pm = 50`

Location `PNNI-Node-Config[`*n*`]:node-timer`

B

background-noise-filter

Description Specifies the type of filter to use for background noise tests performed with the copper loop test (CLT) module.

Usage Valid values are as follows:

- psd—Power spectral density measurement for a 22KHz-to-1.6Mhz range. This is the default.
- e—Reports one noise value at 135-ohm impedance for a 1KHz-to-50kHz range. Used for ISDN qualification.
- f—Reports one value for a 5KHz-to-245KHz range. Used for HDSL qualification.
- g—Reports one noise value at 100-ohm impedance for a 20KHz-to 1.1-MHz range. Used for ADSL qualification.

Example `set background-noise-filter = psd`

Location CLT-COMMAND

background-noise-termination

Description Sets the receiver termination for a background noise test performed with the copper loop test (CLT) module.

Usage Valid values are as follows:

- term100—Places a 100-ohm termination on the received signal. This is the default.
- term135—Places a 135-ohm termination on the received signal.
- bridge100—Puts the receiver in high-impedance mode, and calculates a noise signal based on 100-ohm impedance.
- bridge135—Puts the receiver in high-impedance mode, and calculates a noise signal based on 135-ohm impedance.

Example `set background-noise-termination = bridge135`

Location CLT-COMMAND

backup

Description Specifies the name of a backup `connection` profile for a dedicated (*nailed*) connection. The profile serves as a backup if the remote device goes out of service. It is not intended to provide alternative lines for getting to a single destination.

When the system detects that the primary interface is unavailable, it puts the primary interface in a Backup Active state. *It does not remove the routes to the primary interface*. It then diverts traffic from the primary to the backup interface. When the system detects that the primary interface is available again, it diverts traffic back to the primary interface. If the backup interface is a switched connection, the Stinger unit then breaks the connection.

Usage Specify the name of a `connection` profile. You can enter up to 32 characters. The default is null.

Example `set backup = newyork`

Dependencies Consider the following:

- One of the side effects of the data-link-layer backup interface is that, when a dedicated (nailed) interface specifies a backup interface, the routes to the dedicated interface never go down.
- Nested backups are not supported. (The profile for a backup interface cannot specify another backup interface.)
- The profile for a backup interface does not inherit attributes from the profile for the primary dedicated connection.

Location `CONNECTION:session-options`

backup-enabled

Description Read-only. Internal field used with backup profiles.

Usage Read-only parameter with the following values:

- `no`—Backup is disabled.
- `yes`—Backup is enabled.

Example `backup-enabled = yes`

Location `CONNECTION:session-options`

bad-count

Description Read-only. Indicates the number of times this device has failed.

Usage Read-only numeric value with range 0 to 4294967295.

Example `bad-count = 96`

Location `DEVICE-STATE`

bandwidth

Description Specifies the shaped bandwidth in kilobits per second.

Usage Valid values range from 8000Kbps through 148598Kbps. The default is 8000.

Example `set bandwidth = 9000`

Location `SWITCHCONFIG:atm-parameters:outgoing-shaper:outgoing-shaper[n]`

bandwidth-monitor-direction

Description Specifies the direction for monitoring link utilization.

Usage Valid values are as follows:

- `transmit`—Monitors the transmit direction only.
- `transmit-recv`—Monitors both the transmit and receive directions.
- `none`—Turns off link utilization monitoring.

Example `set bandwidth-monitor-direction = transmit`

Location `ANSWER-DEFAULTS:mp-answer`
`CONNECTION:mpp-options`

banner

Description *Not used.*

banner[*n*]

Description *Not used.*

base-channel-count

Description Specifies the number of channels to be used for a call when the session is initially set up, provided that it is a fixed session.

Usage Specify a number between 0 (zero) and 65535. The default is 1 (one).

Example `set base channel count = 25`

Location `CONNECTION:mp-options`

base-udp-port

Description Specifies a UDP port number. The default zero value causes the system to dynamically assign a nonprivate port for exchanging control information while establishing a tunnel. Having a nonprivate port avoids the possibility of requesting a UDP port that is already in use.

Usage You can configure nonzero values from 10,000 to 60,000 to use a known port, which is sometimes a firewall requirement. The system uses the configured value in the following formula to assign a port number:

base-udp-port + (*shelf-number* × 100) + *slot-number*

Example `set base-udp-port = 55555`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

ber-receive

Description Read-only. Indicates whether the bit-error-rate threshold has been reached or not.

Usage Valid values for this read-only parameter are as follows:

- `true`—Indicates that the bit-error-rate threshold has been reached.
- `false`—Indicates that the bit-error-rate has not been reached.

Example `ber-receive = false`

Location `DS1-ATM-STAT`
`T1-STAT`

bert-enable

Description Specifies whether the bit-error-rate test (BERT) is enabled or disabled.

To check the data integrity of the connection, the BERT counts data errors that occur on each channel. If the two ends of the connection are physically connected, the BERT is run between the two units. If the two ends are not connected, the BERT is run within the module itself. Both ends of the connection must enable the BERT.

Note During a BERT, normal data transmission is interrupted.

Usage Valid values are as follows:

- `yes`—Enables the BERT.
- `no`—Disables the BERT. This is the default

Example `set bert-enable = yes`

Dependencies Consider the following:

- The `bert-enable` setting is not saved to the unit's permanent memory. If you reset the module or the unit, the setting reverts to its default.
- The `bert-timer` setting determines the duration of the BERT.

Location LINE-DIAG

bert-error-counter

Description Read-only. Indicates the number of errors received during the bit-error-rate test (BERT).

Usage The bert-error-counter parameter is read-only.

Dependencies You must set bert-enable to yes for bert-error-counter to apply.

Example bert-error-counter = 0

Location LINE-DIAG-STAT

bert-operation-state

Description Read-only. Indicates the state of the bit-error-rate test (BERT).

Usage The bert-operation-state setting is read-only. Valid values are as follows:

- waiting-for-511-sync—The Stinger unit is waiting for customer premises equipment (CPE) before starting the BERT.
- local-loop-active—The interface is in local analog loopback and is running the test. No remote device is involved.
- active—BERT is running with customer premises equipment (CPE).
- stopped—BERT was disabled.
- loop-back-setup—The interface is being placed into analog loopback.
- start-up—BERT is starting up.

Example bert-operation-state = stopped

Dependencies If the two ends of the connection are not connected, the bert-operation-state setting does not apply. In this case, you must set bert-enabled to no to end the BERT.

Location LINE-DIAG-STAT

bert-timer

Description Specifies the duration of a bit-error-rate test (BERT).

Usage Specify one of the following values:

- 1 minute (the default)
- 2 minutes
- 3 minutes
- 4 minutes
- 5 minutes
- 10 minutes
- 15 minutes

- 20 minutes
- 30 minutes

Example `set bert-timer = 1 minute`

Dependencies Consider the following:

- If the two ends of the connection are not connected, `bert-timer` does not apply. In this case, you must set `bert-enabled` to `no` to end the BERT.
- The `bert-timer` setting is not saved to the unit's permanent memory. If you reset the module or the unit, the setting reverts to its default.

Location `LINE-DIAG`

beta-ima-value

Description Specifies the beta value used to specify the number of consecutive invalid IMA Control Protocol (ICP) cells to be detected before moving to inverse multiplexing over ATM (IMA) HUNT state from the SYNC state.

Usage Valid numbers range from 1 to 5. The default is 2.

Example `set beta-ima-value = 2`

Location `IMAHW-CONFIG`

bi-directional-auth

Description Specifies whether Challenge Handshake Authentication Protocol (CHAP) authentication must be bidirectional. If bidirectional CHAP is allowed or required, and the second authentication is attempted, it must be successful. Otherwise, the Stinger unit rejects the call.

Usage Specify one of the following values:

- `none` (the default)—CHAP authentication is unidirectional. The system identifies the calling device.
- `allowed`—Authentication can be bidirectional. The system identifies the calling device, and also allows the calling device to authenticate the Stinger unit. The system tries to negotiate authentication in the opposite direction as well, but the call is established even if the called device refuses to perform the second authentication option.
- `required`—Authentication must be bidirectional. The system requires that both the calling and called devices authenticate each other. If authentication is not performed in both directions, the Stinger unit rejects the call.

Example `set bi-directional-auth = allowed`

Dependencies Bidirectional authentication is applicable only if the authentication mode is CHAP, MS-CHAP, or `cache-token-ppp-auth`. If `receive-auth-mode` is set to `any-ppp-auth` and the system negotiates Password Authentication Protocol (PAP) authentication with the caller, bidirectional authentication is automatically disabled, even if `bi-directional-auth` is set to `required`.

Location ANSWER-DEFAULTS:ppp-answer
CONNECTION:ppp-options

See Also ppp-answer, ppp-options

billing-number

Description *Not supported.* Specifies a telephone number provided by the carrier to be used for billing purposes.

Location CALL-INFO
CONNECTION:telco-options
FRAME-RELAY

bin-loading

Description An array that enables or disables up to 256 bins (intervals) that correspond to particular frequencies.

Usage For each element in the array, specify one of the following values:

- yes (the default)—Enables a bin to allow a frequency.
- no—Disables a bin to mask a frequency.

To determine the bin number in the array, divide the frequency in question by 4.3125 and add 1.

Example The following command masks the frequency 640kHz by disabling bin 149 (640/4.3125 + 1 = 149):

```
set bin-loading 149 = no
```

Location ADSL-BIN-LOADING

bin-loading-profile

Description Specifies the name of the adsl-bin-loading profile that applies to this ADSL line.

Usage Specify the name of a bin-loading profile. By default, the bin-loading-profile parameter takes the settings of the adsl-bin-loading profile, default.

Example `set bin-loading-profile = default`

Location AL-DMT

bit-rate

Description Specifies the maximum sustainable effective bit rate in kilobits per second.

Usage The valid range is 1 through 135631. The default is 1000 (1Mbps). The Stinger unit verifies that the `bit-rate` value of a shaper does not exceed the effective line rate.

Example `set bit-rate = 10000`

Location `SYSTEM:traffic-shaper`
`ATM-INTERNAL:traffic-shapers[`*n*`]`

bits-per-bin

Description Specifies the maximum number of bits per frequency bin (interval).

Usage Although you can specify a number from 0 through 15, leave this parameter at its default setting of 14, unless you encounter the following situations:

- You need to restrict the line rate, but at the same time retain a uniform distribution of bits per bin across all the bins.
- You need to lower the bits per bin to enable the Stinger unit to interoperate with customer premises equipment (CPE) devices that do not allow 14 bits per bin.

Example `set bits-per-bin = 10`

Location `ADSL-BIN-LOADING`

bit-strings-allowed

Description Specifies whether the SNMP agent in a Stinger unit responds to the BITS data type in bit string format or numeric format.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the SNMP agent responds to BITS data in bit string format.
- `no`—Specifies that the SNMP agent responds to BITS data in numeric format.

Example `set bit-strings-allowed = no`

Location `SNMP`

bit-swapping

Description Enables or disables bit swapping for an ADSL line interface module (LIM).

Note On the 48-port ADSL G.lite LIM, bit swapping has no effect.

Usage Valid values are as follows:

- `yes`—Specifies that bit swapping is enabled

- no—Specifies that bit swapping is disabled. This is the default.

Example `set bit-swapping = yes`

Location `AL-DMT:line-config`

boot-cm-version

Description Read-only. Indicates the version of the control module (CM) boot loader currently present on the control module.

Usage Read-only, 20-character, alphanumeric field.

Example `boot-cm-version = 9.2-167.0`

Location `SYSTEM`

bootp-enabled

Description Enables or disables querying a BOOTP server for settings or to check for a new software load.

Usage Specify one of the following values:

- yes—Enables the system to use BOOTP.
- no—Disables the use of BOOTP. This is the default.

Example `set bootp-enabled = yes`

Location `IP-GLOBAL`

bootp-servers[*n*]

Description An array that specifies the IP address of up to two BOOTP servers.

If you specify more than one BOOTP server, the Stinger unit uses the first server until it becomes unavailable. When the Stinger unit starts using the second BOOTP server, it continues to use that server until it becomes unavailable, at which time the unit switches to using the first server again.

Usage Specify an IP address in dotted decimal notation. The default is `0.0.0.0`.

Example `set 1 = 12.34.56.78`

Location `IP-GLOBAL:bootp-relay`

bottom-high-temperature-threshold

Description *Not supported.* Specifies the bottom control module (CM) thermal sensor high temperature trigger level (in degrees Celsius). When the temperature exceeds this value, an alarm or watchdog state can be generated.

Usage Specify a numeric value between -20 degrees C and 75 degrees C (-4 degrees F and 167 degrees F). A value of 60 degrees C (140 degrees F) is the default.

Example `set bottom-high-temperature-threshold = 65`

Dependencies This threshold can be used for setting an `alarm` profile and `watchdog-config` profile trap. Temperature sensors are available only in version 3 and higher of the CM.

Location `THERMAL`

bottom-low-temperature-threshold

Description *Not supported.* Specifies the bottom control module (CM) thermal sensor low temperature trigger level (in degrees Celsius). When the temperature falls below this value, an alarm or watchdog state can be generated.

Usage Specify a numeric value between -20 degrees C and 75 degrees C (-4 degrees F and 167 degrees F). A value of 0 degrees C (32 degrees F) is the default.

Example `set bottom-low-temperature-threshold = 15`

Dependencies This threshold can be used for setting an `alarm` profile and `watchdog-config` profile trap. Temperature sensors are available only in version 3 and higher of the CM.

Location `THERMAL`

bottom-status

Description Specifies the default contents of the bottom-right portion of the status window.

Usage Valid values are as follows:

- `general-info`—Displays general information and statistics for the system.
- `log-window`—Displays saved system-event log entries. This is the default.
- `line-status`—Displays the status of the system telephony interfaces.

Example `set bottom-status = general-info`

Location `USER`

bpv-error-count

Description Read-only. Indicates the number of bipolar violation (BPV) errors received since the last time the unit was reset. BPV errors might indicate that the line sent consecutive 1 (one) bits with the same polarity, that three or more consecutive zeroes were sent, or that an incorrect polarity was present.

Usage The `bpv-error-count` value is read-only.

Example `bpv-error-count = 0`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`

bridge

Description Enables or disables WAN packet bridging on the interface. With WAN bridging, the Stinger unit can provide a connection between segments that might be connected by a telecommunications link.

Usage Valid values are as follows:

- `yes`—Enables WAN bridging.
- `no` (the default)—Does not enable WAN bridging.

Example `set bridge = yes`

Location `CONNECTION:bridging-options`
`ETHERNET:bridging-options`
`VLAN-ETHERNET:bridging-options`

bridge-non-pppoe

Description Enables or disables bridging of packets other than PPP over Ethernet (PPPoE) packets on the interface.

Usage Valid values are as follows:

- `yes`—Bridges all types of bridged packets.
- `no` (the default)—Bridges only PPPoE packets and discards other types of bridged packets.

Example `set bridge-non-pppoe = yes`

Dependencies Setting `bridge-non-pppoe = yes` will have no effect unless the parameter `bridging-enabled` in the corresponding `ethernet` profile is set to `yes`.

Location `CONNECTION:pppoe-options`
`ETHERNET:pppoe-options`

bridge-status

Description Read-only. Indicates the status of the bridge in the automatic protection switching (APS) system.

Usage Valid values for this read-only parameter are as follows:

- `true`—Bridging is enabled. Bridging is always enabled when the APS system is enabled in 1+1 protection mode.
- `false`—Bridging is disabled.

Example `bridge-status = true`

Location `APS-STAT`

bridge-tap-length

Description Read-only. Indicates the loop length to the first bridge tap detected by the copper loop test (CLT) module.

Usage Read-only numeric field 0 to 4294967295.

Example `bridge-tap-length = 3500`

Dependencies This value is reported in feet if `TDR units` is set to `english`, or in meters if `TDR units` is set to `metric.`

Location `CLT-RESULT`

bridge-tap-number

Description Read-only. Indicates the number of bridge taps detected by the copper loop test (CLT) module.

Usage Read-only numeric field 0 to 4294967295.

Example `bridge-tap-number = 3`

Location `CLT-RESULT`

bridge-tap-table

Description Read-only. Indicates the sets of three values of bridge tap data. One set of values is reported for each bridge tap detected.

Usage Read-only parameters. Each set of data contains the following values:

- Bridge-tap distance in feet or meters.
- Bridge-tap length in feet or meters.
- Confidence level in percentage. Valid values are 33 or 50%.

Dependencies The current copper loop test (CLT) module hardware supports only a single set of bridge-tap data.

Location `CLT-RESULT`

bridging-enabled

Description Enables or disables LAN packet bridging on the Ethernet interface. With LAN bridging, the Stinger unit provides a direct connection between the LAN segments connected to each interface.

Usage Valid values are as follows:

- `yes`— Enables LAN bridging.
- `no` (the default)—Disables LAN bridging.

Example `set bridging-enabled = yes`

Location `ETHERNET`

bridging-group

Description Specifies a number used to group bridged interfaces. When multiple bridged interfaces use the same group number, the Stinger unit consults the bridge logic for a destination interface only within that group. Bridged interfaces that use a different group number are not considered. The effect is to isolate traffic within a bridging group.

In the `answer-defaults` profile, this parameter specifies a default bridging group to use for PPP session requests that do not specify a group number in the `connection` or `radius` profile.

Note For performance reasons, specifying a unique nonzero bridging-group value on a PPPoE interface is recommended. A unique group guarantees that packets do not flow between two bridged interfaces.

Usage Specify a group number from 1 to 65535. The default value is 0 (zero).

Example `set bridging-group = 1`

Dependencies In a VLAN configuration, the `bridging-group` value in the `vlan-ethernet` profile must match the `bridging-group` value in the `connection` profile that the `vlan-id` maps to.

Location `ANSWER-DEFAULTS:ppp-answer`
`CONNECTION:bridging-options`
`ETHERNET:bridging-options`
`VLAN-ETHERNET:bridging-options`

btap-measure-length

Description Specifies the loop length—100 to 20000 feet (32 to 6097 meters)—for a bridge-tap search by the copper loop test (CLT) module.

Usage Specify a number between zero (0) and 65535. The default is zero.

Example `set btap-measure-length = 100`

Location `CLT-COMMAND`

btap-start-length

Description Specifies the starting location—15 to 20000 feet (5 to 6097 meters)—for a bridge-tap search by the copper loop test (CLT) module.

Usage Specify a number between zero (0) and 65535. The default is zero.

Example `set btap-start-length = 50`

Location `CLT-COMMAND`

buffer-chars

Description *Not used.*

C

cac-preference

Description Specifies whether the system reserves bandwidth for a connection at connection setup time or when the connection is provisioned.

Usage Valid values are as follows:

- `connection-time` (the default)—The system attempts to reserve bandwidth for a connection when it is establishing the connection.
- `provisioning-time`—The system attempts to reserve bandwidth for a connection when it is provisioning the connection. You can configure a new connection or modify an existing one only if there is sufficient available bandwidth.

Example `set cac-preference = provisioning-time`

Dependencies Consider the following:

- A change in the `cac-preference` value takes effect only after a system reset.
- When you modify the quality-of-service (QoS) definitions in an `atm-qos` profile, all `connection` profiles (both active and inactive) that specify the use of that profile are affected. The system deallocates the bandwidth assigned to those connections and then reallocates it according to the new definitions in the `atm-qos` profile.

Note If it does not have sufficient bandwidth for all connections, the system allocates the guaranteed bandwidth for as many connections as possible. The remaining connections (if any) that use the modified `atm-qos` profile are allocated no bandwidth and are therefore not established.

- With `provisioning-time` in effect, if CAC bandwidth allocation fails while the system is provisioning a new connection or modifying the `nailed-group` or `atm-qos` profile assignment of an existing `connection` profile, the system displays an error message and does not write the profile. When the system fails to modify an existing configuration due to lack of sufficient available bandwidth, the existing CAC bandwidth is maintained for the connection.

Location `SYSTEM`

calea

Description Indicates whether the Communications Assistance for Law Enforcement Act (CALEA) license is enabled.

Usage The `calea` setting is read-only and can have one of the following values:

- `yes` indicates that the CALEA license is enabled.
- `no` indicates that the CALEA license is not enabled.

Example `calea = yes`

Location `BASE`

calibration-type

Description Specifies the type of calibration needed for certain copper loop test (CLT) module tests.

Usage Specify one of the following values:

- `insertion-loss` (the default)—Calibration type for an insertion loss test.
- `background-noise`—Calibration type for a background noise test.

Example `set calibration-type = insertion-loss`

Location `CLT-COMMAND`

callback

Description *Not supported.* Enables or disables callback security, which requires dial-out capability.

Usage Valid values are as follows:

- `yes`
- `no` (the default)

Location `CONNECTION:telco-options`

call-by-call

Description *Not used.*

Location `CALL-INFO`

call-by-call-id

Description *Not used.*

Location `FRAME-RELAY`

callednumber

Description *Not supported.* Specifies the number called to establish the connection used for dialed number identification service (DNIS) authentication.

Location `CONNECTION`

called-number-type

Description *Not supported.* Specifies the type of telephone number used to dial a call.

Location `CALL-INFO`
`CONNECTION`
`FRAME-RELAY`

call-filter

Description Specifies the name of a filter to apply to the interface. The filter name can be from a local `filter` profile or RADIUS pseudo-user profile.

The setting in the `answer-defaults` profile is used only for RADIUS-authenticated connections that do not specify a call filter.

If the system applies both a call filter and a data filter to a connection, it applies the data filter first. Only those packets that the data filter forwards reach the call filter.

Usage Specify the filter name. The default is null, which indicates no filter.

Example `set call-filter = test`

Dependencies If a local `connection` profile does not use authentication, it cannot specify a RADIUS filter profile. *Filters are not supported with the current software version.*

Location `ANSWER-DEFAULTS:session-info`
`CONNECTION:session-option`

call-info

Description Specifies whether, at the time an authenticated call ends, the Stinger unit reports to `syslog` the following information about the call:

- Station name
- Calling telephone number
- Called telephone number
- Encapsulation protocol
- Data rate (in bits per second)
- Progress code or disconnect reason
- Number of seconds before authentication
- Number of bytes or packets received during authentication
- Number of bytes or packets sent during authentication
- Length of session (in seconds)
- Number of bytes or packets received during the session
- Number of bytes or packets sent during the session

A one-line `syslog` message contains information about the terminated call. The information also appears in the connection status window and is logged as a message at level INFO. For example:

```
"Conn=("cjones-p50" 5106785291->? MP 56000 60/185) \
Auth=(3 347/12 332/13) \
Sess=(1 643/18 644/19), Terminated"
```

If some of the information is not available, that field is displayed as either a question mark (?) for strings or a zero (0) for numerals.

Note Use `call-info` only for diagnosing session problems. Because the reports to `syslog` rely on the UDP protocol, which does not guarantee delivery, do use `call-info` for billing purposes.

Usage Valid values are as follows:

- `end-of-call`—Specifies that the Stinger unit reports the information to `syslog`.
- `none` (the default)—Specifies that the Stinger unit does not report the information.

Example `set call-info = end-of-call`

Location `LOG`

calling-integrity-time

Description *Not used.* Specifies the number of seconds a node waits for an switched virtual channel connection (SVCC) it has initiated to become fully established before giving up and tearing it down.

Location `PNNI-NODE-CONFIG:node-svcc-rcc`

call-kind

Description Specifies the type of call control for an ATM virtual path link (VPL) or virtual channel link (VCL) configuration.

Usage Specify one of the following call control types:

- `pvc`—Virtual link of a permanant virtual cirtuit (PVC) or permanent virtual path (PVP). This is the default value.
- `svc-incoming`—Virtual link established after reception of a signaling request to set up a switched virtual circuit (SVC). An `svc-incoming` type call is built dynamically.
- `svc-outgoing`—Virtual link established after the forwarding or transmission of a signaling request to set up an SVC. An `svc-outgoing` type call is built dynamically.
- `spvc-initiator`—Virtual link at the PVC side of an SVC or PVC cross-connect, where the switch is the initiator of the soft PVC (SPVC) setup.
- `spvc-target`—Virtual link at the PVC side of an SVC or PVC cross-connect, where the switch is the target of the soft PVC setup. An `spvc-target` type call is built dynamically.

Location `ATM-VCL-CONFIG`
`ATM-VPL-CONFIG`

call-log-connection-packets-enable

Description Specifies that call-logging Start and Stop packets are sent when a connection is established or ended, in contrast to line statistics call logging, which is always enabled.

Usage Valid values are as follows:

- `yes`—Specifies that call-logging Start and Stop packets are sent when a connection is established or ended.

- `no` (the default)—Specifies that call-logging Start and Stop packets are not sent. To optimize operations use the default.

Example `set call-log-connection-packets-enable = yes`

Location `CALL-LOGGING`

call-log-dropped-pkt-enabled

Description Enables or disables the transmission of an SNMP notification (trap) when the system detects a change in the status of call-logging packets.

If this parameter is enabled, the system generates a trap when the value of `callLoggingDroppedPacketCount` in the call-logging MIB changes. A change from 0 to 1 indicates that packets are being dropped. A change from 1 to 0 indicates that packets are no longer being dropped.

Usage Valid values are as follows:

- `yes` (the default)—Enables transmission of a notification when the system detects a change in the status of call-logging packets.
- `no`—Disables transmission of a notification when the system detects a change in the status of call-logging packets.

Example `set call-log-dropped-pkt-enable = no`

Location `TRAP`

call-log-enable

Description Enables or disables call logging.

Usage Valid values are as follows:

- `yes`—Enables call logging.
- `no`—Disables call logging. This is the default.

Example `set call-log-enable = yes`

Dependencies If you set `call-log-enable` to `yes`, you must specify the IP address of at least one call-log host for the `call-log-host-`*`n`* setting.

Location `CALL-LOGGING`

call-log-evaluation-end-julian-time

Description *Internal use only.*

call-log-host-1
call-log-host-2
call-log-host-3

Description Specifies the IP address of a call-log host.

The Stinger unit first tries to connect to host 1. If it receives no response, it tries to connect to host 2. If it still receives no response, it tries host 3. If the Stinger unit connects to a host other than host 1, it continues to use that host until it fails to service requests, even if the first host has come back online.

Usage Specify an IP address in dotted decimal notation. The default is `0.0.0.0`.

Example `set call-log-host-1 = 10.1.2.3`

Dependencies Consider the following:

- For `call-log-host-1`, `call-log-host-2`, or `call-log-host-3` to apply, you must set `call-log-enable` to `yes`.
- Call logging is available with NavisRadius™ only. For information, see the NavisRadius™ documentation.

Location `CALL-LOGGING`

call-log-id-base

Description Specifies whether the Stinger unit presents a session ID to the call-log host in base 10 or base 16.

Usage Valid values are as follows:

- `acct-base-10`—Specifies a decimal base. This is the default.
- `acct-base-16`—Specifies a hexadecimal base.

Example `set call-log-id-base = acct-base-16`

Dependencies Consider the following:

- If `call-log-enable` is set to `no`, `call-log-id-base` does not apply.
- Changing the value of `call-log-id-base` while call-logging sessions are active results in inconsistent reporting between the Start and Stop records.

Location `CALL-LOGGING`

call-log-key

Description Specifies a shared secret that enables the call-logging host to recognize data from the Stinger unit. A shared secret acts as a password between the Stinger unit and the call-logging host.

Usage Specify the text of the shared secret. The value you specify must match the value configured on the call-logging host. The default is null.

Example `set call-log-key = mypw`

Dependencies If `call-log-enable` is set to `no`, `call-log-key` does not apply.

Location `CALL-LOGGING`

call-log-limit-retry

Description Specifies the maximum number of retries for call-logging packets.

When the Stinger unit is configured for call logging, it sends Start and Stop packets to the call-log host to record connections. If the host does not acknowledge a packet within the number of seconds you specify for `call-log-timeout`, the Stinger unit tries again, resending the packet until the host responds, or dropping the packet if the queue of packets to be resent is full. You can limit the number of retries by setting a maximum.

The Stinger unit always makes at least one attempt before this parameter setting goes into effect. For example, if you set the number of retries to 10, the Stinger unit makes 11 attempts: the original attempt plus 10 retries.

Usage To set the maximum number of retries for Start and Stop packets, set `call-log-limit-retry` to a value greater than 0 (zero). A value of 0 (the default) indicates an unlimited number of retries.

Example `set call-log-limit-retry = 10`

Location `CALL-LOGGING`

call-log-multi-packet

Description Enables or disables delivery by the Stinger unit of multiple requests in a single call-logging packet to a call-logging host that supports the Lucent 16-bit vendor-specific attributes (VSAs). Enabling this feature optimizes the transfer of call-logging data to the network management station.

Usage Valid values are as follows:

- `yes`—Specifies that multiple all-logging requests are sent in a single packet.
- `no` (the default)—Specifies that multiple all-logging requests are not sent in a single packet.

Dependencies This parameter can be enabled only if the `call-log-radius-compat` parameter is set to the value `16-bit-vendor-specific`.

Example `set call-log-multi-packet = no`

Location `CALL-LOGGING`

call-log-port

Description Specifies the UDP destination port to use for call-logging requests.

Usage Specify a UDP port number from 1 to 32767. The value must match the port number configured on the call-logging host. The default is 1646.

Example `set call-log-port = 1500`

Dependencies If `call-log-enable` is set to `no` in the `call-logging` profile, `call-log-port` does not apply.

Location `CALL-LOGGING`

call-log-radius-compat

Description Enables or disables vendor-specific attribute (VSA) compatibility mode when the unit is using RADIUS for call logging to the NavisAccess™ manager.

Usage Valid values are as follows:

- `vendor-specific`—Specifies 8-bit VSA support. All standard attributes are sent in standard RFC format, and all VSAs are sent in 8-bit VSA format. The unit ignores all VSAs in received packets that do not have `vendor-id` set to `ascend-vendor-id`.
- `16-bit-vendor-specific`—Specifies 16-bit VSA support. All standard attributes are sent in standard RFC format, and all VSAs are sent in the 16-bit VSA format as Lucent VSAs. The system ignores all VSAs in received packets that do not have `vendor-id` set to `lucent-vendor-id`. In this format, the first 256 Lucent VSAs are mapped to the 256 Ascend VSAs.

Note The `old-ascend` setting is no longer available for `call-log-radius-compat`.

Example `set call-log-radius-compat = vendor-specific`

Dependencies Consider the following:

- For `call-log-radius-compat` to apply, you must set `call-log-enable` to `yes`.
- Call logging is available with NavisRadius™ only. For information, see the NavisRadius™ documentation.
- At this time, only NavisRadius™ supports 16-bit VSAs.

Location `CALL-LOGGING`

call-log-reset-time

Description Specifies the number of seconds that must elapse before the Stinger unit returns to using the primary call-log host (`call-log-host-1`).

Usage Specify the number of seconds. The default is 0 (zero), which specifies that the Stinger unit does not return to using the primary call-log host.

Example `set call-log-reset-time = 60`

Dependencies For `call-log-reset-time` to apply, you must set `call-log-enable` to `yes` in the `call-logging` profile and specify at least one value for `call-log-host-`*`n`* *in the same profile*.

Location `CALL-LOGGING`

call-log-serv-change-enabled

Description Enables or disables trap (notification) generation when the call-logging server changes (Ascend trap 38).

If the call-logging server index is changed, or if the IP address of the active call-logging server is changed, this trap sends the following information to the Simple Network Management Protocol (SNMP) manager:

- The new call logging server index (`callLoggingServerIndex`)
- The IP address of new call logging server (`callLoggingServerIPAddress`)
- The absolute time to show when the server change occurred (`sysAbsoluteCurrentTime`)

Usage Specify one of the following settings:

- `yes`—Specifies that the unit generates a trap when the call-logging server changes.
- `no` (the default)—Specifies that the unit does not generate a trap when the call-logging server changes.

Example `set call-log-serv-change-enabled = yes`

Dependencies Call logging is available with NavisRadius™ only. For information, see the NavisRadius™ documentation.

Location `TRAP`

call-log-server-index

Description Specifies which of the configured `call-log-host-`*n* parameter settings are used as the active call-logging server.

Usage Valid values are as follows:

- `host-1` (the default)
- `host-2`
- `host-3`

If the Stinger unit cannot authenticate the specified server, it attempts to use the next configured server.

Example `set call-log-server-index = host-1`

Location `CALL-LOGGING`

call-log-stop-only

Description Specifies whether the Stinger unit sends a Stop packet that does not contain a username. (At times, the Stinger unit can send a Stop packet to the call-logging host without having sent a Start packet. Such a Stop packet has no username.)

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the Stinger unit sends a Stop packet even if it does not contain a username. This is the default.
- `no`—Specifies that the Stinger unit does not send a Stop packet that does not contain a username.

Example `set call-log-stop-only = no`

Location `CALL-LOGGING`

call-log-stream-period

Description Specifies the number of minutes between snapshots for stream packets.

Usage Leave the setting for this parameter at its default value of 15.

Example `set call-log-stream-period = 15`

Location `CALL-LOGGING`

call-log-timeout

Description Specifies the amount of time (in seconds) that the Stinger unit waits for a response to a call-logging request. If it does not receive a response within the specified time, the Stinger unit sends the request to the next host specified by Call-Log-Host-*N*. If all call-logging hosts are busy, the Stinger unit stores the request and tries again at a later time. It can queue up to 154 requests.

Usage Specify an integer from 1 to 10. The default is 1.

Example `set call-log-timeout = 5`

Dependencies If `call-log-enable` is set to `no`, `call-log-timeout` does not apply.

Location `CALL-LOGGING`

call-route-info

Description *Not used.* The current default setting indicates the `preferred-source` setting in a `call-route` profile. Any call received on the specified T1 channel is routed to the index address.

The preferred method of call routing is to use the `call-route` profile. However, although `call-route-info` is deprecated, any nondefault setting you specify for it takes precedence over a `preferred-source` specification in a `call-route` profile.

Usage Specify a device address within the Stinger unit. Set `call-route-info` in any profile or subprofile listed in the location information below. The default indicates any device and passes the responsibility for call routing to `call-route` profiles. Lucent Technologies recommends that you accept the default.

Example `set call-route-info = { 1 6 48 }`

Location AL-DMT:line-config
DS3-ATM:line-config
E3-ATM:line-config
HDSL2:line-config
OC3-ATM:line-config
SDSL:line-config
SHDSL:line-config

call-route-type

Description Specifies the type of call that the Stinger unit can route to a host device.

Usage Valid values are as follows:

- any-call-type (the default)—Specifies that the Stinger unit can route any type of call to a host device.
- voice-call-type—Specifies that the Stinger unit can route voice bearer calls, excluding 3.1kHz audio, to a host device.
- digital-call-type—Specifies that the Stinger unit can route general digital calls, including 3.1kHz audio bearer channel calls, to a host device. As far as the Stinger unit is concerned, 3.1kHz audio calls are voice-bearing. The Stinger unit routes them to a modem, not a High-Level Data Link Control (HDLC) controller.
- trunk-call-type—Specifies that the Stinger unit routes calls to a trunk device. This value applies to trunk calls.
- voip-call-type—Specifies that the Stinger unit treats incoming calls as voice calls coming from the Public Switched Telephone Network (PSTN) for routing across a packet network bridge to another PSTN.
- phs-call-type—Specifies Personal Handyphone System (PHS) calls.
- v110-call-type—Specifies digital calls recognized as containing V.110 rate-adapted bearer channels.

Example `set call-route-type = trunk-call-type`

Dependencies Consider the following:

- The voip-call-type setting is supported only when voip-enabled is set to yes.
- When a Voice over IP (VoIP) software license has been enabled, the system creates a new call-route profile for each installed MultiDSP module that supports VoIP. The new call-route profile sets the call-route-type value to voip-call-type., which enables the system to route VoIP calls to the MultiDSP module.

  When the unit receives a VoIP call on a network line, it routes the traffic internally on its time-division multiplexing (TDM) bus to the MultiDSP module, which handles VoIP-related functions such as audio coder/decoder (codec) processing, Real-Time Transport Protocol (RTP) processing, and UDP processing.

Location CALL-ROUTE

call-routing-sort-method

Description Specifies whether to use the slot-first call-routing sort method or the item-first sort method for analog calls.

When the system resets, the Stinger unit creates the call-routing database by sorting the list of all installed devices. During active use, the Stinger unit resorts the list on the basis of system activity, but the initial sort order determines the initial order in which the unit uses host modules.

Usage Valid values are as follows:

- `item-first` (the default)—Specifies that the Stinger unit sorts by item number, then shelf, and then slot number. This setting tends to distribute incoming calls evenly across multiple host modules, resulting in load balancing across all modules, even after a system reset.
- `slot-first`—Specifies that the Stinger unit sorts by shelf and slot number, and then by item number. This setting tends to concentrate incoming calls on one host module at a time.

Example `set call-routing-sort-method = slot-first`

Location `SYSTEM`

call-service

Description Read-only. Indicates the type of call service.

Usage Read-only parameter with one of the following values:

- `nailed-up`—This channel is not switched, but is permanent. No setup procedures are required.
- `switched`—The call is switched.
- `serial-wan`—The call is served by a serial WAN port or an *x*DSL port that acts like a serial WAN port.
- `atm-wan`—The call is connected to an E3-ATM, DS3-ATM, or OC3-ATM port.

Example `call-service = nailed-up`

Location `CALL-INFO`

call-type

Description Specifies whether a session must remain established, even if inactive.

Usage Specify one of the following values:

- `off`—Enables the system to end inactive PPP over Ethernet (PPPoE) sessions and reestablish them when activity resumes.
- `ft1` (the default)—Keeps PPPoE sessions established indefinitely.
- `ft1-mpp`—*Not supported.*
- `ft1-bo`—*Not supported.*

Example `set call-type = off`

Dependencies This setting applies only to Stinger units that support PPPoE sessions to a router module.

Location `CONNECTION:telco-options`

cap-equivalent-r-s

Description Read-only. Indicates the ring-to-shield equivalent capacitance in picofarads for copper loop test (CLT) module capacitance test.

Usage Read-only numeric value with a range of 0 to 4294967295.

Example `cap-equivalent-r-s = 1200`

Location `CLT-RESULT`

cap-equivalent-t-r

Description Read-only. Indicates the tip-to-ring equivalent capacitance in picofarads for copper loop test (CLT) module capacitance test.

Usage Read-only numeric value with a range of 0 to 4294967295.

Example `cap-equivalent-t-r = 1200`

Location `CLT-RESULT`

cap-equivalent-t-s

Description Read-only. Indicates the tip-to-shield equivalent capacitance in picofarads for copper loop test (CLT) module capacitance test.

Usage Read-only numeric value with a range of 0 to 4294967295.

Example `cap-equivalent-t-s = 1200`

Location `CLT-RESULT`

carrier-established

Description Read-only. Indicates whether error conditions exist on the physical line connection.

Usage Valid values for this read-only parameter are as follows:

- `true`—Indicates there are no error conditions.
- `false`—Indicates there are error conditions.

Example `carrier-established = false`

Location `DS1-ATM-STAT`
`T1-STAT`

cast-type

Description Specifies the connection profile topology type.

Usage With the current software version, only the default value `2p2` (point-to-point) is valid.

Example `set cast-type = p2p`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

cbr

Description Specifies whether constant bit rate (CBR) traffic is enabled or disabled in this queue.

Usage Valid values are as follows:

- `yes`—Indicates the queue supports CBR traffic. This is the default.
- `no`—Indicates the queue does not support CBR traffic.

For each queue, one or more Asynchronous Transfer Mode (ATM) services categories can be set to `yes`. CBR must be set to `yes` for at least one and no more than two of the active queues assigned to a line interface module (LIM), control module, or trunk.

Example `set cbr = no`

Location `SWITCH-CONFIG:atm-parameters:outgoing-queue`

cbsr-enable

Description Enables/disables the bootstrap router (BSR) router mechanism. When set to `yes`, the Stinger unit acts as a candidate BSR and takes part in electing a BSR in the Protocol Independent Multicast (PIM) domain. With the `yes` setting, you must specify a `cbsr-ip-address` value. This setting is not used when `enable` is set to `no`.

Usage Valid values are as follows:

- `yes`—Enables the BSR router mechanism.
- `no` (the default)—Disables the BSR router mechanism.

Example `set cbsr-enable = yes`

Location `IP-GLOBAL:pim-options`

cbsr-interval

Description Number of seconds between transmission of bootstrap messages (BSMs). The default is to send BSMs every 60 seconds. This setting is not used when `cbsr-enable` is set to `no`.

Usage Specify a number of seconds from 5 to 900.

Example `set cbsr-interval = 120`

Location IP-GLOBAL:pim-options

cbsr-ip-address

Description Local IP address the Stinger unit uses to send bootstrap messages (BSMs) when cbsr-enable is set to yes. This setting is not used when cbsr-enable is set to no.

Usage Specify an IP address in dotted decimal notation.

Example `set cbsr-ip-address = 1.1.1.101`

Location IP-GLOBAL:pim-options

cbsr-priority

Description Bootstrap router (BSR) priority for the Stinger. The priority is used in the election of BSR. The system is more likely to be elected BSR with a higher priority value. To enable the system to exchange bootstrap messages (BSMs) without becoming BSR, leave the default zero setting, or set a low numeric value. This setting is not used when cbsr-enable is set to no.

Usage Specify a number from 0 (the default) to 255.

Example `set cbsr-priority = 1`

Location IP-GLOBAL:pim-options

cdv-pm

Description Specifies a proportional multiplier (a percentage) used to determine significant change for the cell delay variation (CDV) metrics. CDV is a component of cell transfer delay (see ctd-pm), induced by buffering and cell scheduling and is associated with constant bit rate (CBR) and variable bit rate (VBR) quality of service (QoS).

Usage Specify a percentage. The default value is 25.

Example `set cdv-pm = 25`

Location PNNI-NODE-CONFIG[*n*]:node-timer

See Also ctd-pm

cell-delay-variation-tolerance

Description Specifies the cell delay variation tolerance (CDVT) in microseconds.

Usage Specify a value in the range 0 (zero) to 1500 microseconds. The default value is 20. This setting is related to the *jitter* tolerance of the application. Use these guidelines to help you determine a setting:

- The ideal delay variation is 0 for an application such as voice.

- The default of 20 microseconds is a reasonable jitter threshold for most applications with a low tolerance for delay—for example, constant bit rate (CBR) and real-time variable bit rate (VBR) traffic applications.
- A higher value can be used for nonreal-time VBR and other applications that are not delay sensitive.

Example `set cell-delay-variation-tolerance = 50`

Location `ATM-QOS`

cell-delineation

Description Read-only. Indicates that ATM cell delineation, which is cell transfer below the specified header error control (HEC) level, has been reached.

Usage Valid values for this read-only parameter are as follows:

- `true`—Indicates cell delineation has been reached.
- `false` (the default)—Indicates cell delineation has not been reached.

Example `cell-delineation = false`

Location `DS1-ATM-STAT`

cell-level

Description *Not used.*

cell-mode-first

Description *Not used.*

cell-payload-scramble

Description Specifies whether cell payload scrambling in Asynchronous Transfer Mode (ATM) cells is enabled.

Usage Valid values are as follows:

- `yes`—Enables cell payload scrambling. This is the default.
- `no`—Disables cell payload scrambling

Example `set cell-payload-scramble = no`

Location `DS3-ATM:line-config`
`E3-ATM:line-config`

channel-mismatch-clear-timer-duration

Description Specifies the amount of time in tens of milliseconds allowed for clearing the timer in a channel mismatch in automatic protection switching (APS).

Usage Specify a number from 0 through 4,294,967,295. The default is 1000.

Example `set channel-mismatch-clear-timer-duration = 500`

Location APS-CONFIG

channel-mismatch-failure

Description Read-only. Indicates whether one channel has been mistakenly matched with another.

Usage Valid values for this read-only parameter are as follows:

- `true`—A channel-mismatch failure has occurred.
- `false`—A channel-mismatch failure has not occurred.

Example `channel-mismatch-failure = false`

Location APS-STAT

channel-mismatch-failure-timer-duration

Description Specifies the channel-mismatch failure timer duration in tens of milliseconds in automatic protection switching (APS).

Usage Specify a number from 0 through 4,294,967,295. The default is 250.

Example `set channel-mismatch-failure-timer-duration = 290`

Location APS-CONFIG

channel-state

Description Read-only. Indicates the status of the physical connection on the line.

Usage Valid values for this read-only parameter are as follows:

- `disabled`—Indicates that line is configured as disabled.
- `unavailable`—Indicates that the line is enabled, but no customer premises equipment (CPE) device is connected to the IDSL port.
- `nailed-up`—Indicates that physical connection has been made.

Example `channel-state = [ disabled disabled ]`

Location IDSL-Stat
T1-STAT

channel-usage

Description *Not used.*

chassis-serial-number

Description Read-only. Indicates the identity of the Stinger chassis.

Usage Read-only parameter with a range of 0 to 4294967295.

Location `REDUNDANCY-STATS:context-stats:context-stats[n]`

check-far-end-ima-id

Description Enables or disables the verification of the far-end IMA ID during inverse multiplexing over ATM (IMA) group startup.

Usage Valid values are as follows:

- `yes`—Specifies that this check is enabled.
- `no`—Specifies that this check is not enabled. This is the default.

Example `check-far-end-ima-id = no`

Location `IMAGROUP`

circuit-name

Description Indicates or specifies, according to the profile that includes it, the name of a circuit.

Usage Valid values for this parameter are as follows:

- In an `atmpvc-stat` profile, `circuit-name` is a read-only value for the name of the permanent virtual circuit (PVC).
- In an `atmvcc-stat` profile, `circuit-name` is a read-only value for the name of the virtual channel connection (VCC).
- In the `fr-options` subprofile of a `connection` profile, you can specify a name for the peer frame relay data link for a frame relay circuit, using up to 14 characters.

Note If you are configuring IDSL, and you do not specify `circuit-name` in the `fr-options` subprofile of the `connection` profile, the Stinger unit automatically creates a circuit name based on the `vpi`, `vci`, and `nailed-group` parameters set in the `atm-connect-options` subprofile.

- In `frdlci-stat` and `frpvc-stat` profiles, the circuit name is a read-only parameter containing the name of the peer frame relay data link.

Example `set circuit-name = ozone1`

Location ATMPVC-STAT
ATMVCC-STAT
CONNECTION:fr-options
FRDLCI-STAT
FRPVC-STAT

clear-call

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration

clear-screen

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration

clid

Description Specifies the calling line number for authentication.

Usage Specify an alphanumeric value of up to 24 characters. The default value is blank.

Example `set clid = 510-555-1212`

Location CONNECTION

clid-auth-mode

Description *Not supported.* Specifies an authentication mode to occur before the system retrieves a caller's profile by using the caller ID or called number.

Location ANSWER-DEFAULTS
CONNECTION:answer-options

clid-selection

Description *Not supported.* Specifies whether to use a Public Switched Telephone Network (PSTN) caller ID or one supplied by the device requesting a session.

Location ANSWER-DEFAULTS
CONNECTION:tunnel-options

client-auth-id

Description Specifies the Layer 2 Tunneling Protocol (L2TP) access concentrator (LAC) system name used for tunnel authentication. The name is sent to the L2TP network server (LNS) in Start Control Connection Request (SCCRQ) packets.

Tunnel authentication can be configured on a tunnel server end point level or on a connection basis. It occurs during tunnel establishment.

Usage Specify the LAC name, up to 31 characters. The default is null.

Example `set client-auth-id = nyserver`

Location CONNECTION:tunnel-options
TUNNEL-SERVER

client-default-gateway

Description Specifies a default gateway for traffic from this connection if no specific route appears in the IP routing table.

Usage Specify an IP address. The default is 0.0.0.0, which causes the system to use the `default` route.

Example `set client-default-gateway = 2.2.2.2`

Location CONNECTION:ip-options

client-dns-addr-assign

Description Enables or disables client Domain Name System (DNS) for the connection. When client DNS is enabled, the system presents client DNS server addresses while negotiating the connection. The addresses it presents can be specified in the `connection` profile or `ip-global` profile.

Usage Valid values are as follows:

- `yes`—Makes the client DNS server addresses available to the connection. This is the default.
- `no` —Does not make the client DNS server addresses available.

Example `set client-dns-addr-assign = no`

Location CONNECTION:ip-options

client-dns-primary-addr

Description Specifies the IP address of a client Domain Name System (DNS) server for the connection. Client DNS servers provide a way to protect your local DNS information from WAN users. Client DNS has two levels: a global configuration, and a connection-specific configuration. This setting applies to the connection-specific level.

Usage Specify the IP address of the primary DNS server for the connection. The default is 0.0.0.0/0, which specifies that no primary DNS server is available for the connection.

Example `set client-dns-primary-addr = 3.3.3.3/28`

Dependencies

- If `client-dns-addr-assign` is set to `no`, this setting does not apply.

- If this setting is null, and client DNS has been configured system-wide in the `ip-global` profile, the system uses the global client DNS server address.

Location `CONNECTION:ip-options`

client-dns-secondary-addr

Description Specifies the IP address of a secondary client Domain Name System (DNS) server for the connection. The unit presents this server address during IP Control Protocol (IPCP) negotiation only if the server specified by `client-dns-primary-addr` is inaccessible.

Usage Specify the IP address of the secondary DNS server for the connection. The default is 0.0.0.0/0, which specifies that no secondary DNS server is available for the connection.

Example `set client-dns-secondary-addr = 4.4.4.4/28`

Dependencies If `client-dns-addr-assign` is set to `no`, this setting does not apply.

Location `CONNECTION:ip-options`

client-primary-dns-server

Description Specifies the IP address of the primary client Domain Name System (DNS) server for remote customer premises equipment (CPE) devices that do not have a client DNS server defined in the client's profile. The address is presented to WAN connections during IP Control Protocol (IPCP) negotiation.

Client DNS can be specified system-wide to allow all CPE to access one or two DNS servers. Or it can be configured on a connection basis, to allow each appropriately configured connection to access one or two specific servers. At the system level, client DNS also allows an exit mechanism to the local servers if the client servers are inaccessible.

When specified in a `vrouter` profile, the effect of this DNS setting is similar to that in the `ip-global` profile, but is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router uses the DNS settings defined in the `ip-global` profile

Usage Specify the IP address of a DNS server for CPE devices that do not require a connection-specific client DNS configuration. The default is `0.0.0.0/0`, which specifies that no client DNS server is available on a global level.

Example `set client-primary-dns-server = 1.1.1.1/28`

Location `IP-GLOBAL`
`VROUTER`

client-secondary-dns-server

Description Specifies the IP address of a secondary client Domain Name System (DNS) server for remote customer premises equipment (CPE) devices that do not have a client DNS server defined in the client's profile. The address is presented to WAN connections during IP Control Protocol (IPCP) negotiation.

Client DNS can be specified system-wide to allow all CPE to access one or two DNS servers. Or it can be configured on a connection basis, to allow each appropriately configured connection to access one or two specific servers. At the system level, client DNS also allows an exit mechanism to the local servers if the client servers are inaccessible.

When specified in a `vrouter` profile, the effect of this DNS setting is similar to that in the `ip-global` profile, but is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router uses the DNS settings defined in the `ip-global` profile

Usage Specify the IP address of a DNS server for CPE devices that do not require a connection-specific client DNS configuration. The default is `0.0.0.0/0`, which specifies that no client DNS server is available on a global level.

Example `set client-secondary-dns-server = 2.2.2.2/28`

Location `IP-GLOBAL`
`VROUTER`

client-wins-addr-assign

Description Enables or disables client Windows Internet Name Service (WINS) for the connection. When client WINS is enabled, the system presents client WINS server addresses while negotiating the connection. The addresses it presents can be specified in the `connection` profile or `ip-global` profile.

Usage Valid values are as follows:

- `yes`—Makes the client WINS server addresses available to the connection. This is the default.
- `no`—Does not make the client WINS server addresses available.

Example `set client-wins-addr-assign = no`

Location `CONNECTION:ip-options`

client-wins-primary-addr

Description Specifies the IP address of a client Windows Internet Name Service (WINS) server for the connection.

Client WINS servers provide a way to protect your local WINS information from WAN users. Client WINS has two levels: a global configuration that applies to all PPP connections, and a connection-specific configuration. This setting applies to the connection-specific level.

The system uses the global client addresses only if the `connection` profile specifies no WINS server addresses. You can also choose to present your local WINS servers to clients if no other servers are defined or available.

Usage Specify the IP address of the primary WINS server for the connection. The default is 0.0.0.0/0, which specifies that no primary WINS server is available for the connection.

Example `set client-wins-primary-addr = 3.3.3.3/28`

Dependencies If `client-wins-addr-assign` is set to `no`, this setting does not apply.

Location `CONNECTION:ip-options`

client-wins-secondary-addr

Description Specifies the IP address of a secondary client Windows Internet Name Service (WINS) server for the connection. The unit presents this server address during IP Control Protocol (IPCP) negotiation only if the server specified by `client-wins-primary-addr` is inaccessible.

Usage Specify the IP address of the secondary WINS server for the connection. The default is 0.0.0.0/0, which specifies that no secondary WINS server is available for the connection.

Example `set client-wins-secondary-addr = 4.4.4.4/28`

Dependencies If `client-wins-addr-assign` is set to `no`, this setting does not apply.

Location `CONNECTION:ip-options`

cli-user-auth

Description Specifies whether the Stinger unit authenticates a command-line-interface user by means of local profiles or an external authentication server, and if the authentication is to be in any specific order.

Usage Specify one of the following settings:

- `local-then-external`—Specifies that the Stinger unit uses local `user` profiles for the first authentication attempt. If that attempt fails, the unit attempts authentication through an external server, if an external authentication server exists. This is the default.
- `local-only`—Specifies that the Stinger unit uses only local `user` profiles.

- `external-only`—Specifies that the Stinger unit uses only an external authentication server and ignores local `user` profiles.
- `external-then-local`—Specifies that the Stinger unit authenticates by means of an external authentication server. If authentication fails or times out, the unit uses local `user` profiles to make another attempt.
- `external-then-local-if-timeout`—Specifies that the Stinger unit authenticates by means of an external authentication server. If authentication times out, the unit uses local `user` profiles to make another attempt.

Example `set cli-user-auth = local-only`

Location `EXTERNAL-AUTH`

clock-change-trap-enabled

Description Enables or disables the system generation of a trap (notification) on a clock change.

Usage Select one of the following values:

- `yes`—Clock change generates a trap.
- `no`—Clock change does not generate a trap. This is the default.

Example `set clock-change-trap-enabled = yes`

Location `TRAP`

clock-priority

Description Assigns a clock source priority to an interface.

When multiple interfaces are eligible to be the clock source for synchronous transmissions, the Stinger unit uses the value you specify to select an interface as the master clock source.

Usage Valid values are as follows. The default is `middle-priority` in all profiles except `ds1-atm`, in which the default is `high-priority`.

- `high-priority`—Specifies the highest priority. The Stinger unit chooses an interface with this priority setting as the clock source over other interfaces with a lower priority. If more than one interface has the highest priority, the first available interface becomes the clock source.
- `middle-priority`—Specifies the second priority. The Stinger unit chooses an interface with this priority setting if every interface with a high-priority setting is unavailable. If more than one interface has a middle-priority setting, the first available middle-priority interface becomes the clock source.
- `low-priority`—Specifies the lowest priority. The Stinger unit chooses an interface with this priority only if every interface with a higher priority setting is unavailable. If more than one interface has a low-priority setting, the first available low-priority interface becomes the clock source.

Once the Stinger unit chooses an interface as the clock source, it uses that interface until it becomes unavailable, or a until a higher-priority source becomes available.

Example `set clock-priority = middle-priority`

Dependencies Consider the following:

- If `clock-source` is set to `not-eligible`, this setting does not apply.
- If multiple interfaces are eligible to be the clock source and each interface has an equal `clock-priority` value, the Stinger unit chooses a clock source at random.

Location `DS1-ATM:line-config`
`DS3-ATM:line-config`
`E3-ATM:line-config`
`OC3-ATM:line-config`
`HDSL2:line-config`
`SHDSL:line-config`

clock-source

Description Specifies whether a Stinger unit can use an interface as the master clock source for its timing subsystem.

Usage Valid values are as follows:

- `eligible`—The system can obtain its clock signal from the port.
- `not-eligible` (the default)—The system cannot use the port for a clock source.

Example `set clock-source = eligible`

Location `DS1-ATM:line-config`
`DS3-ATM:line-config`
`E3-ATM:line-config`
`OC3-ATM:line-config`
`HDSL2:line-config`
`SHDSL:line-config`

cltm-shelf

Description Identifies the shelf where a copper loop test (CLT) is to be performed. The system uses a value of 1 for a standalone or host unit or the shelf number of a remote unit as the index in the `CLT-MS-ACCES` profile.

Usage Enter the shelf number, preceded by `shelf-`.

Example `set cltm-shelf = shelf-2`

Location `CLT-MS-ACCESS`

cltm-slot

Description Specifies the number of the slot in which a copper loop test (CLT) module or path selector module (PSM) is installed.

Usage Enter the slot number, preceded by `slot-`.

Example `set cltm-slot = slot-15`

Location CLT-MS-ACCESS
CLT-COMMAND
CLT-RESULT

clt-slot-number

Description Read-only. Indicates the number of the slot in which a copper loop test (CLT) module or path selector module (PSM) is installed.

Usage The `clt-slot-number` value is read-only.

Example `clt-slot-number = any-slot`

Location LINE-TESTS

code-violations

Description Read-only. Indicates the number of cyclic redundancy check (CRC) anomalies occurring during the accumulation period. Use this parameter to check interface operations.

Usage The `code-violations` value is read-only.

Example `code-violations = 17`

Location AL-DMT-STAT:physical-statistic
HDSL2-STAT:physical-statistic
SDSL-STAT:physical-statistic
SHDSL-STAT:physical-statistic

coil-detection-coil-count

Description Read-only. Indicates the number of load coils detected during a copper loop test (CLT).

Usage The `coil-detection-coil-count` value is read-only.

Example `coil-detection-coil-count = 2`

Location CLT-RESULT

coldstart-enabled

Description Specifies whether the system generates a notification (trap) when the Stinger unit reinitializes itself so that the configuration of the SNMP manager or the system itself might be altered.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when the Stinger unit reinitializes itself so that the configuration of the SNMP manager or the system itself might be altered. This is the default.

- `no`—Specifies that the system does not generates a notification (trap) when the Stinger unit reinitializes itself so that the configuration of the SNMP manager or the system itself might be altered.

Example `set coldstart-enabled = no`

Location `TRAP`

command[*n*]

Description Commands to allow or exclude.

Usage Specify up to 512 commands that the users are allowed to use or are excluded from using.

Example `set command 1 = write`

Dependencies This parameter is used in conjunction with the `exclude-listed-commands` parameter.

Location `USER-GROUP`

community-minus-1

Description *Not used.* Specifies a number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the community minus one scope.

Usage Specify a number from 1 (one) to 104. The default is 64.

Example `set community-minus-1 = 64`

Location `PNNI-NODE-CONFIG:node-scope-mapping`

community-name

Description Specifies the SNMP community name associated with SNMP protocol data units (PDUs). The string you specify becomes a password that the Stinger unit sends to the SNMP manager when an SNMP notification (trap) event occurs. The password authenticates the sender identified by `host-address`.

Usage Specify a community name of up to 31 characters. The default is `public`.

Example `set community-name = mycomm`

Location `TRAP`

community-plus-1

Description *Not used.* Specifies a number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the community plus one scope.

Usage Specify a number from 1 (one) to 104. The default is 48.

Example `set community-plus-1 = 48`

Location PNNI-NODE-CONFIG[*n*]:node-scope-mapping

comp-neq

Description Specifies whether to test for packet data that is equal to a specified value or not equal to that value.

Usage Valid values are as follows:

- yes—The comparison succeeds (the filter matches) if the contents do not equal the specified value.
- no (the default)—The comparison succeeds when the values are equal. For a filter that requires the packet contents to equal the specified value, leave comp-neq (*compare-not-equals*) set to no.

Example `set comp-neq = no`

Dependencies This setting applies only if the type parameter in the input-filter or output-filter subprofile is set to generic-filter.

Location FILTER:input-filters[*n*]:gen-filter
FILTER:output-filters[*n*]:gen-filter

config-change-enabled

Description Specifies whether the Stinger unit generates a Simple Network Management Protocol (SNMP) Config-Change notification (trap 30) whenever the system configuration is modified or a new software version is loaded.

Usage Valid values are as follows:

- yes (the default)—Specifies that the trap is enabled.
- no—Specifies that the trap is not enabled.

Example `set config-change-enabled = no`

Location TRAP

config-side

Description Specifies the role of the managed entity as one side of the Asynchronous Transfer Mode (ATM) interface.

Usage Valid values are as follows:

- user—The managed entity has the role of user.
- network—The managed entity has the role of network.
- other—This is the default.

Example `set config-side = other`

Dependencies This value does not apply when `config-type` is set to `atmf-pnni1dot0`.

Location `ATM-IF-CONFIG:extension-config`

config-type

Description Specifies the type of connection setup procedures configured for the ATM interface.

Usage Specify one of the following values:

- `atmf-uni-pvc-only` (the default)
- `atmf-pnni1dot`—For trunk port interfaces, this value enables a Private Network-to-Network Interface (PNNI) setup.
- `atmf-auto-config`—Sets the configuration type automatically.

Example `set config-type = atmf-pnni1dot`

Location `ATM-IF-CONFIG:extension-config`

connection-profile-auto-naming-convention

Description Specifies the naming convention for `connection` profiles generated by the system when a cross-connect entry has been created via SNMP.

Usage Valid values are as follows:

- `lower-interface-number-first` (the default)—Creates a `connection` profile and assign the profile a name that specifies the slot and port with the low `ifIndex` value first, followed by the slot and port with the higher `ifIndex` value. For example:

  ```
  admin> dir connection
  147  11/25/2001 18:28:05  17:1-0-50x1:1-0-50
  146  11/25/2001 18:36:25  17:1-15x1:1-15
  ```

- `atm-options-entry-first`—Creates a `connection` profile and assign the profile a name that specifies the slot and port of the first side of the ATM circuit (the interface specified in the `connection atm-options` subprofile) , followed by the slot and port of the second side of the ATM circuit (the interface specified in the `atm-connect-options` subprofile).

  ```
  admin> dir connection
  147  11/25/2001 18:28:05  1:1-0-50x17:1-0-50
  146  11/25/2001 18:36:25  1:1-15x17:1-15
  ```

Example `set connection-profile-auto-naming-convention = atm-options-entry-first`

Location `SYSTEM`

conn-estab-interval

Description Specifies the number of seconds between successive transmissions of interim link management interface (ILMI) messages on this interface for the purpose of detecting establishment of ILMI connectivity. *ILMI is not supported with the current software version.*

Usage Set a value from 1 to 65535 seconds. The default value is 1 (one).

Example `set conn-estab-interval = 15`

Location `ATM-IF-CONFIG:extension-config`

conn-kind

Description Specifies the kind of soft permanent virtual circuit (SPVC).

Usage With the current software version, valid values are as follows:

- `pvc`—Specifies a virtual link of a permanent virtual circuit (PVC)/permanent virtual path (PVP). This is the default.
- `spvc-initiator`—Specifies a virtual link at the permanent virtual channel (PVC) side of an SPVC—the line interface module (LIM)-side connection to customer premises equipment (CPE).
- `spvc-target`—Specifies a virtual link at the PVC side of an SPVC where the switch is the target of the SPVC setup
- `svc-incoming`—*Not used.* Specifies a virtual link established after reception of a signaling request to set up a switched virtual connection (SVC).
- `svc-outgoing`—*Not used.* Specifies a virtual link established after forwarding or transmission of a signaling request to set up an SVC.

Note With the current software version, the settings specified by `svc-incoming` and `svc-outgoing` are build dynamically by the system and are unavailable in the TAOS command-line interface.

Example `set conn-kind = spvc-target`

Location `CONNECTION:atm-connect-options`
`CONNECTION:atm-options`

conn-user

Description Read-only. Indicates whether a soft permanent virtual circuit (SPVC) connection is for a user or for a signaling channel.

Usage Valid values for this read-only parameter are as follows:

- `default`—Represents any normal user connection.
- `cpcs` (common part convergence sublayer)—Indicates that the profile was created automatically for use by the ATM signaling control channel.

Example `conn-user = default`

Location `CONNECTION`

console-enabled

Description Specifies whether the system generates an SNMP notification (trap) when the console has changed state.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when the console has changed state. This is the default.
- `no`—Specifies that the system does not generate a trap when the console has changed state.

Example `set console-enabled = no`

Location `TRAP`

console-mode

Description Specifies the console mode used on the serial console (diagnostic) port.

Usage Valid values are as follows:

- `on` (the default)—Specifies that the console port is activated for the specified control module.
- `off`—Specifies that the console port is not activated for the specified control module.
- `y-cable`—Specifies that the console port on a unit with redundant control modules uses automatic mode. In this mode, when control of the system switches to the secondary control module so that the secondary became primary, that control module's console also switches over and becomes active. This is a kind of console redunduncy.

Example `set console-mode = y-cable`

Dependencies For the `y-cable` setting to apply, the serial ports of both redundant control modules must be connected through a Y-cable to an administrative terminal.

Location `SERIAL`

contact

Description Specifies the person or department to contact for reporting error conditions. The contact value is SNMP readable and settable.

Usage Specify the name of a contact person or department. You can enter up to 80 characters. The default is null.

Example `set contact = rchu`

Location `SNMP`

contact-closure[*n*]

Description An array of indexed parameters that indicate the contact closure state on the corresponding remote shelf.

Note Only the first two contact closure values are meaningful for Stinger MRT units.

Usage This parameter is read-only. Valid values are as follows:

- `yes`—Contact-closure sensors on the remote shelf indicate loss of contact closure.
- `no` (the default)—Contact-closure sensors on the remote shelf indicate closure.

Example `contact-closure[1] = no`

Location `REMOTE-SHELF-STAT`

context-prefix

Description Specifies a name to be compared with the name present in the incoming or outgoing protocol data unit (PDU), either as a prefix or as a complete match. This parameter must be configured as part of the view based access control model (VACM).

Usage Specify a name in plain text of up to 32 characters.

Example `set context-name = electra`

Dependencies The value of `match-method` determines how the value of `context-prefix` is matched in the incoming or outgoing PDU:

- If `match-method` is set to `exact-match`, the name in the PDU must match exactly.
- If `match-method` is set to `prefix-match`, only the prefix of the name in the PDU must match.

Location `VACM-ACCESS:access-properties`

continuity-level

Description Specifies the type of continuity test.

Usage Specify one of the following values:

- `end-to-end`—Specifies testing at the end-to-end level.
- `segment` (the default)—Specifies testing at the segment level.

Example `set continuity-level = end-to-end`

Location `ATM-OAM:continuity-config`

contract-name

Description Specifies a name in one of two profiles:

- In an `atm-qos` profile, `contract-name` specifies the unique name of the quality-of-service (QoS) contract used with one or more Asynchronous Transfer Mode (ATM) connections.
- In an `atm-prefix` profile, `contract-name` specifies the name of the profile.

Usage Valid values are as follows:

- In an `atm-qos` profile, specify a text string of up to 16 characters. The default is null.
- In an `atm-prefix` profile, specify a name of up to 20 characters. The name specifies the profile with the default index containing the system-generated ATM prefix.

Dependencies In the `atm-qos` profile only, if `encapsulation-protocol` is not set to `atm` or `atm-circuit`, `contract-name` does not apply.

Example

- For an `atm-qos` profile:

  ```
  set contract-name = contract002
  ```

- For an `atm-prefix` profile:

  ```
  set contract-name = target-2
  ```

Location `ATM-PREFIX`
`ATM-QOS`

control-bus-type

Description Specifies how to send control bus messages.

Usage Valid values are as follows:

- `dpram` (dual port RAM; the default)—Specifies a single shared bus between the control module and each line interface module (LIM). It is an extension of the control module processor.
- `pbus` (packet bus)—Specifies an ATM start connection between the control module and each LIM.

Example `set control-bus-type = pbus`

Location `SYSTEM`

control-connect-establish-timer

Description Specifies the number of seconds during which the system can establish a Layer 2 Tunneling Protocol (L2TP) tunnel with another host. Any change you make to this value takes effect when the previous timer expires.

Usage Specify a number from 0 to 600. The default is 60.

Example `set control-connect-establish-timer = 120`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

controller-switchover-enabled

Description Enables or disables system generation of a trap (notification) on a control module switchover in a redundant system.

Usage Select one of the following values:

- `yes`—Control module change generates a trap.
- `no`—Control module change does not generate a trap.

Example `set controller-switchover-enabled = yes`

Location `TRAP`

core-dump-rip-update

Description Specifies the RIP update rate during a core dump.

Usage Specify one of the following values:

- `update-higher-freq`—RIP updates are sent in higher frequency during core dumps.
- `update-high-freq` (the default)—RIP updates are sent in high frequency during core dumps.
- `update-med-freq`—RIP updates are sent in medium frequency during core dumps.
- `update-low-freq`—RIP updates are sent in low frequency during core dumps.
- `update-lower-freq`—RIP updates are sent in lower frequency during core dumps.
- `update-off`—RIP updates are not sent during core dumps.

Example `set core-dump-rip-update = update-off`

Location `DEBUG`

corrected-hec-error-count

Description Read-only. Number of corrected header check sequence (HCS) errors since the Stinger unit was last reset.

Usage The `corrected-hec-error-count` value is read-only.

Example `corrected-hec-error-count = 0`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`

correction-factor

Description Specifies the number of failures that must be detected by control module self-tests before a correction is made. The system is configured by default to perform background integrity tests of the control module application-specific integrated circuit (ASIC) at a specified interval (10 milliseconds by default).

Usage Valid values range from 1 (one) through 20. The default is 5.

The system keeps a history of the past 20 tests. If the correction factor is 1, 1 failure out of the past 20 tests results in a correction. If the correction factor is 5, 5 failures out of 20 result in a correction.

Example `set correction-factor = 6`

Location `SYSTEM-INTEGRITY:integrity-config`

coset-enabled

Description *Not used.* Specifies whether the ATM Forum polynomial (coset polynomial) is added to the header error control (HEC) field, in the transmit direction, before the HEC verification of a received cell.

Usage Specify one of the following values:

- `yes` (the default)—Specifies that the ATM Forum coset polynomial value is added to HEC before the HEC verification of a received cell.
- `no`—Specifies that the ATM Forum polynomial (coset polynomial) is not added to HEC before the HEC verification of a received cell.

Example `set coset-enabled = no`

Location `DS1-ATM:line-config`

cost

Description Cost of an OSPF link. The lower the cost, the more likely OSPF is to use the interface to forward data traffic.

The value you can enter for `cost` depends upon your configuration:

Usage Specify a number from 1 through 16777214. The default is 1 on the Ethernet interface, or 10 on a WAN link. With the exception of links to stub networks, the output cost must always be nonzero. A link with a cost of `0xFFFFFF` (16777215) is considered nonoperational.

Example `set cost = 50`

Dependencies In a static route, interpretation of the `cost` value depends on the type of external metric set by `ase-type`. If the Stinger unit is advertising type 1 metrics, OSPF can use the specified number as the cost of the route. Type 2 external metrics are an order of magnitude larger. Any type 2 metric is considered greater than the cost of any path internal to the autonomous system.

Location CONNECTION:ip-options:ospf-options, IP-INTERFACE:ospf

countries-enabled

Description Read-only. Indicates the bit set identifying the countries enabled in the Stinger unit.

Usage The countries-enabled setting is read-only.

Example countries-enabled = 511

Location BASE

country-code

Description Specifies the country location regarding modem settings, to program the modem for any operational parameters that need to be adjusted for national regulations or telephone networks.

Usage Valid values are as follows. The default value is unitedstates.

australia	austria	belgium	brazil
bulgaria	canada	china	czechslovak
denmark	finland	france	germany
greece	hongkong	hungary	india
ireland	israel	italy	japan
korea	luxembourg	malaysia	mexico
netherlands	newzealand	norway	philippines
poland	portugal	russia	singapore
southafrica	spain	sweden	switzerland
taiwan	unitedkingdom	unitedstates	

Example **set country-code = malaysia**

Dependencies When the modem profile is updated and written, a check is made to see if the modem supports the selected value for country-code. If the modem supports the value, it is programmed with the new country code. If the modem does not support the selected country code then country-code is not updated with the new value and an error message is logged.

Location MODEM

cp-bit-error-count

Description Read-only. Indicates the number of parity errors on C-bit-parity lines since the last time the unit was reset.

Usage The `cp-bit-error-count` value is read-only.

Example `cp-bit-error-count = 0`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`

cross-connect-index

Description Read-only. Indicates the cross-connect index in the AToM MIB. A cross-connect receives a cell stream on one interface and transmits it on another.

Usage The `cross-connect-index` value is read-only.

Example `cross-connect-index = 0`

Location `CONNECTION`

cslip-auto-detect

Description *Not used.*

ctd-pm

Description Specifies the proportional multiplier (a percentage) used to determine significant change for the cell transfer delay (CTD) metrics. Cell transfer delay is the elapsed time between a cell exit event at one interface for a connection, such as the source User-Network Interface (UNI), and the corresponding cell entry event at another interface, such as the destination UNI. The cell transfer delay between two measurement points is the sum of the total inter-ATM node transmission delay.

Usage Specify a percentage from 1 to 99. The default is 50.

Example **`set ctd-pm = 60`**

Location `PNNI-NODE-CONFIG[`*n*`]:node-timer`

ctone-tone

Description Specifies the type of control tone to be used in a copper loop test (CLT).

Usage Valid values are as follows:

- `quiet`—Specifies the quiet type of tone. This is the default.
- `restore`—Specifies that a normal tone type is restored.

Example **`set ctone-tone = restore`**

Location `CLT-COMMAND`

ctone-type

Description Specifies the type of DSL service to use for the control tone in a copper loop test (CLT).

Usage Valid values are as follows:

- `adsl`—Specifies that ADSL is used for the control tone. This is the default.
- `glite`—Specifies that G.lite is used for the control tone.

Example `set ctone-typt = glite`

Location `CLT-COMMAND`

current-state

Description Read-only. Indicates the state of a slot, a permanent virtual circuit (PVC), or an ATM virtual channel connection (VCC), depending on the profile.

Usage Valid values for this read-only parameter are as follows:

- In a `slot-state` profile, `current-state` indicates the current operational state of the slot and can have one of the following values:
  - `oper-state-down`—The slot is in a nonoperational state.
  - `oper-state-up`—The slot is in normal operations mode.
  - `oper-state-diag`—The slot is in diagnostics mode.
  - `oper-state-dump`—The slot is dumping its memory.
  - `oper-state-pend`—The slot is no longer down, but is not yet ready for normal operation. This value denotes a transitional state in which additional shelf-to-slot communications are required to make the slot fully operational.
  - `oper-state-post`—The slot is running a self-test.
  - `oper-state-maint`—This state indicates the operator explicitly took the card out of operation.
  - `oper-state-none`—The slot is empty.
- In an `atmpvc-stat` profile, `current-state` indicates the current state of the ATM permanent virtual circuit (PVC) and can have one of the following values:
  - `pvc-inactive`—The PVC is inactive.
  - `pvc-closed`—The PVC exists, but it is closed.
  - `pvc-data-transfer`—The PVC is active, and data can be transferred.
- In an `atmvcc-stat` profile, `current-state` indicates the current state of the ATM virtual channel connection (VCC) and can have one of the following values:
  - `vcc-inactive`—The VCC is inactive.
  - `vcc-closed`—The VCC exists, but it is closed.
  - `vcc-data-transfer`—The VCC is active, and data can be transferred.
- In an `frpvc-stat` or `frdlci-stat` `FRPVC-STAT` or `FRDLCI-STAT` profile, `current-state` indicates the current state of the permanent virtual circuit (PVC) and can have one of the following values:
  - `pvc-inactive`—The PVC is inactive.

- pvc-closed—The PVC exists, but it is closed.
- pvc-data-transfer—The PVC is active, and data can be transferred.

Example current-state = pvc-inactive

Location ATMPVC-STAT
ATMVCC-STAT
FRDLCI-STAT
FRPVC-STAT
SLOT-STATE

curr-node-id

Description Specifies the value that the unit is currently using to represent itself as this Private Network-to-Network Interface (PNNI) node.

Usage Specify either the PNNI node ID generated by the system or the ID manually entered for node-id.

Example **set curr-node-id =**
48:a0:39:84:0f:80:01:bc:72:00:01:d0:6a:96:00:ff:d0:6a:+

Location PNNI-NODE-CONFIG

curr-node-peer-group-id

Description Specifies the value the unit is currently using as its peer group ID.

Usage Specify either the Private Network-to-Network Interface (PNNI) peer group ID generated by the system, or the ID manually entered in node-peer-group-id.

Example **set curr-node-peer-group-id =**
48:39:84:0f:80:01:bc:72:00:01:00:00:00:00

Location PNNI-NODE-CONFIG

D

dadsl-atm-24

Description Specifies whether code images for ADSL 24-port line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Specifies that the system loads the code image if an ADSL 24-port LIM is installed. This is the default.
- `load`—Specifies that the system loads the code image when one is present in the tar file.
- `skip`—Specifies that the system skips the code image when one is present in the tar file.

Note A module is considered present in the system if a `slot-type` profile exists for that module type. The system creates a `slot-type` profile when it first detects the presence of a module, and does not delete the profile unless you use the `slot –r` command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use `slot –r` to remove `slot-type` profiles for modules that are no longer installed in the system.

Example `set dadsl-atm-24 = auto`

Location `LOAD-SELECT`

data-call-enabled

Description Read-only. Indicates whether the Stinger unit supports data calls over integrated services digital network (ISDN) lines.

Usage The `data-call-enabled` parameter setting is read-only. Valid values are as follows:

- `yes`—Indicates that the Stinger unit supports data calls over ISDN lines.
- `no` (the default)—Indicates that the Stinger unit does not support data calls over ISDN lines.

Example `data-call-enabled = yes`

Location `BASE`

data-filter

Description Specifies the name of a filter to apply to the interface. The filter name can be from a local `filter` profile or RADIUS pseudo-user profile.

The setting in the `answer-defaults` profile is used only for RADIUS-authenticated connections that do not specify a data filter.

If the system applies both a call filter and a data filter to a connection, it applies the data filter first. Only those packets that the data filter forwards reach the call filter.

Usage Specify the filter name. The default is null, which indicates no filter.

Example `set data-filter = ip-spoof`

Dependencies If a local `connection` profile does not use authentication, it cannot specify a RADIUS filter profile. *Filters are not supported with the current software version.*

Location `ANSWER-DEFAULTS:session-info`
`CONNECTION:session-options`

data-ip-address

Description Specifies the IP address of the Ethernet port to be used for stacking data traffic. The system advertises the address to other members of the stack in stacking control packets, and those systems, in turn, send stacking data packets to the address you specify.

Usage Specify an IP address in dotted decimal notation. The default is 0.0.0.0, which specifies that the `system-ip-addr` value is advertised instead of the `data-ip-address` value.

Example `set data-ip-address = 1.1.1.1`

Dependencies The Stinger unit supports a soft IP interface, which is an internal interface that is always operational. Routing protocols always advertise the soft interface address as reachable on all interfaces that are operational and running a routing protocol. Like the `system-ip-addr`, the `data-ip-address` is an area of memory that contains the address of one of the Ethernet interfaces of the Stinger unit.

If the specified interface becomes unavailable, all stacking data packets destined for the interface are lost. Some applications use the soft interface for the `data-ip-address` value to keep from being bound to a particular interface. To use the soft interface as the destination for stacking data packets, enter the soft IP interface address for `data-ip-address`.

Location `STACKING`

data-rate-mode

Description Specifies the per-session DSL data-rate mode.

Usage Valid values are as follows:

- `autobaud`—Specifies that a DSL modem must train up to a set data rate. If a DSL modem cannot train to this data rate, it connects at the closest rate to which it can train (the modem's ceiling rate).
- `singlebaud` (the default)—Specifies that the device trains to a single data rate, even if the DSL modem can train at a higher or lower data rate.

Note Currently, only the `singlebaud` setting is supported on the SDSL module.

Example `set data-rate-mode = singlebaud`

Location `SDSL:line-config`

data-service

Description *Not supported.* Specifies the type of service requested of a telephone company central office (CO) switch.

Location `CONNECTION:telco-options`

dc-delta-resistance-r-s

Description Read-only. Indicates the ring-to-shield resistance in ohms for a copper loop test (CLT) module dc-delta resistance test.

Usage Read-only numeric field with a range of 0 to 4294967295. The value 99999999 indicates that the measurement is over range.

Example `dc-delta-resistance-r-s = 1200`

Location `CLT-RESULT`

dc-delta-resistance-t-r

Description Read-only. Indicates the tip-to-ring delta resistance in ohms.for a copper loop test (CLT) module dc-delta resistance test.

Usage Read-only numeric field with a range of 0 to 4294967295. The value 99999999 indicates that the measurement is over range.

Example `dc-delta-resistance-t-r = 1200`

Location `CLT-RESULT`

dc-delta-resistance-t-s

Description Read-only. Indicates the tip-to-shield delta resistance in ohms for a copper loop test (CLT) module dc-delta resistance test.

Usage Read-only numeric field with a range of 0 to 4294967295. The value 99999999 indicates that the measurement is over range.

Example `dc-delta-resistance-t-s = 1200`

Location `CLT-RESULT`

dc-delta-voltage-r-s

Description Read-only. Indicates the ring-to-shield voltage in millivolts for a copper loop test (CLT) module dc-delta voltage test.

Usage Read-only numeric field with a range of 0 to 4294967295.

Example `dc-delta-voltage-r-s = 200`

Location `CLT-RESULT`

dc-delta-voltage-t-s

Description Read-only. Indicates the tip-to-shield voltage in millivolts for a copper loop test (CLT) module dc-delta voltage test.

Usage Read-only numeric field with a range of 0 to 4294967295.

Example `dc-delta-voltage-t-s = 200`

Location `CLT-RESULT`

dcen392-val

Description Specifies the total number of errors that must occur during data circuit-terminating equipment (DCE)-N392-monitored events to cause the network side to declare the user side's procedures inactive.

Usage Specify a value from 1 to 10. The value you specify must be less than the `dcen393-val` value. The default is 3.

Example **`set dcen392-val = 7`**

Dependencies If `link-type` is set to `dte`, `dcen392-val` does not apply.

Location `FRAME-RELAY`

dcen393-val

Description Specifies the data circuit-terminating equipment (DCE)-monitored event count.

Usage Specify a value from 1 to 10. The value you specify must be greater than the value of `dcen392-val`. The default is 4.

Example `set dcen393-val = 8`

Dependencies If `link-type` is set to `dte`, `dcen393-val` does not apply.

Location `FRAME-RELAY`

d-channel-enabled

Description Read-only. Indicates whether the unit enables D-channel (ISDN) signaling.

Usage The `d-channel-enabled` setting is read-only. Valid values are as follows:

- `yes`—Indicates that the unit supports D-channel signaling.
- `no`—Indicates that the unit does not support D-channel signaling.

Example `d-channel-enabled = yes`

Location `BASE`

dead-interval

Description Specifies the number of seconds the Open Shortest Path First (OSPF) router waits for Hello packets before determining that its neighbor is unavailable.

Usage Specify a number from 0 through 65535. The default is 40 for a connected route, and 120 for a WAN connection.

Example `set dead-interval = 40`

See Also `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`
`OSPF-VIRTUAL-LINK`

decrement-channel-count

Description Specifies the number of channels the Stinger unit removes as a bundle when bandwidth changes, either manually or automatically, during a call.

Note You cannot clear a call by decrementing channels.

Usage Specify an integer from 1 to 32. The default is 1.

Example `set decrement-channel-count = 2`

Location `ANSWER-DEFAULTS:mpp-answer`
`CONNECTION:mpp-options`

default-filter-cache-time

Description Specifies the number of minutes to cache RADIUS filter profiles that do not include a value for `Ascend-Cache-Time (57)`.

Once the cache timer expires, cached profiles are deleted from system memory. The next time a remote filter is needed, the system retrieves the profile from RADIUS and stores it in cache again. Keeping a profile in cache increases performance when establishing sessions that use the filter, at the cost of some system memory.

Usage Specify a number of minutes. The default is `1440` (24 hours). If this parameter is set to `0` (zero), the default timer is disabled so that only RADIUS profiles specifying a cache time are cached.

Example `set default-filter-cache-time = 600`

Dependencies The system uses this setting only if no cache time is specified in the RADIUS filter profile.

Location `IP-GLOBAL`

default-prt-cache-time

Description Specifies the number of minutes to cache RADIUS private-route profiles that do not include a value for `Ascend-Cache-Time (57)`.

Keeping a profile in cache increases the performance of route lookups, at the cost of some system memory. Once the cache timer expires, cached profiles are deleted from system memory. The next time a private route is needed, the system retrieves the profile from RADIUS and stores it in cache again.

Usage Specify a number of minutes. The default is `1440` (24 hours). If this parameter is set to `0` (zero), the default timer is disabled so that only RADIUS profiles specifying a cache time are cached.

Example `set default-prt-cache-time = 600`

Dependencies The system uses this setting only if no cache time is specified in the RADIUS private-route profile.

Location `IP-GLOBAL`

default-status

Description Specifies whether the Stinger unit displays the status screen by default when the user logs in.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit displays the status screen when it authenticates the profile.
- `no`—Specifies that the Stinger unit does not display the status screen when it authenticates the profile. This is the default.

Example `set default-status = yes`

Dependencies The `default-status` setting applies to Telnet and console logins. It does not apply to use of the `auth` command.

Location `USER`

defect-ratio

Description *Not used.* Specifies the ratio of "no-defect-to-defect" time on a link. This parameter determines the relationship between the following:

- The amount of time the Stinger system waits to declare *no defect*
- The amount of time it waits before declaring a defect

The higher the value, the greater the integration time needed before the link can be used after it is out of alarms.

Usage Enter a number between 0 (zero) and 2147483647. The default is 10.

Example The following example specifies that five times as much time must elapse before the unit declares *no defect* and can use the link again.

```
set defect-ratio = 5
```

Location `DS1-ATM:line-config:ima-option-config:rxlink-config`

delay

Description *Not used.*

delay-callback

Description *Not supported.* Specifies a delay (in seconds) before the system initiates callback.

Location `CONNECTION:telco-options`

delta-cell-delin-value

Description Specifies the number of consecutive cells with a correct header error count (HEC) required for the Stinger unit to move from the PRESYNC state to the SYNC state.

Usage Specify a number between 1 (one) and 16. The default is 6.

Example `set delta-cell-delin-value = 16`

Location `IMAHW-CONFIG`

desired-state

Description Specifies the desired administrative state of a device.

The actual state of the device can differ from the desired state, as when a device is starting (powering up), or if you change the desired state on a running slot. Changing the desired state does not force a device to the new state. It directs the Stinger unit to change the device state in a graceful manner.

Usage Valid values are as follows:

- `admin-state-down`—Specifies that the addressed device should terminate all operations and enter the DOWN state.
- `admin-state-up` (the default)—Specifies that the addressed device should come up in normal operations mode.

Dependencies You can change the administrative state of a device by using the SNMP `Set` commands or the Stinger `slot-d` and `slot-u` commands.

Example `set desired-state = admin-state-down`

Location `ADMIN-STATE-PERM-IF`
`ADMIN-STATE-PHYS-IF`

desired-trap-state

Description Read-only. Indicates whether `linkUp` and `linkDown` notifications (traps) have been enabled.

Usage The `desired-trap-state` setting is read-only. Valid values are as follows:

- `trap-state-enabled`—Indicates that `linkUp` and `linkDown` traps are generated for the interface.
- `trap-state-disabled`—Indicates that `linkUp` and `linkDown` traps are not generated for the interface.
- `system-defined` (the default)—Indicates that whether `linkUp` and `linkDown` traps are generated is determined in the `system` profile.

Example `desired-trap-state = trap-state-enabled`

Location `ADMIN-STATE-PERM-IF`
`ADMIN-STATE-PHYS-IF`

dest-address

Description Specifies a destination IP address in the following profiles:

- In an `ip-route` profile or the route description in a `private-route-table` profile, the default null address (0.0.0.0) represents the default route. The system forwards packets whose destinations do not match an entry in the routing table to the default route.
- In a `filter` profile, the combined value of `dest-address` and `dest-address-mask` represents a destination address to be filtered. The default null address (0.0.0.0) matches all packets.

Usage Specify an IP address in dotted decimal notation.

Example `set dest-address = 1.1.1.1`

Dependencies In a `filter` profile, this setting applies only if `type` is set to `ip-filter` or `tos-filter`.

Location `FILTER:input-filters[n]:ip-filter`
`FILTER:output-filters[n]:ip-filter`
`FILTER:input-filters[n]:tos-filter`
`FILTER:output-filters[n]:tos-filter`
`IP-ROUTE`
`PRIVATE-ROUTE-TABLE`

dest-address-mask

Description Specifies a mask that the system applies to the `dest-address` value before comparing that value to the destination address of a packet.

You can use this value to hide the host portion of an address, or its host and subnet portion. After translating the mask and address into binary format, the system applies the mask to the address by performing a logical AND operation. The mask hides the portion of the address that appears behind each binary 0 (zero) in the mask.

Usage Specify a mask in decimal notation. The default is 0.0.0.0, which masks all bits. A mask of all ones (255.255.255.255) masks no bits, so the system compares the full destination address of a single host.

Example `set dest-address-mask = 255.255.255.255`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `ip-filter` or `tos-filter`.

Location `FILTER:input-filters[n]:ip-filter`
`FILTER:output-filters[n]:ip-filter`
`FILTER:input-filters[n]:tos-filter`
`FILTER:output-filters[n]:tos-filter`

dest-port

Description Specifies the port number to be compared with the destination port of a packet. TCP and UDP port numbers are typically assigned to services.

For a list of assigned port numbers, see RFC 1700, *Assigned Numbers*, by Reynolds, J. and Postel, J., October 1994.

Usage Specify a number from 0 to 65535. The default is 0 (zero), which matches any port.

Example `set dest-port = 25`

Dependencies This setting applies only if `type` parameter in the `input-filter` or `output-filter` subprofile is set to `ip-filter` or `tos-filter`.

Location FILTER:input-filters[*n*]:ip-filter
FILTER:output-filters[*n*]:ip-filter
FILTER:input-filters[*n*]:tos-filter
FILTER:output-filters[*n*]:tos-filter

detect-end-of-packet

Description Enables or disables detection of the end of a packet.

Usage Valid values are as follows:

- yes—Specifies that end-of-packet detection is enabled.
- no—Specifies that end-of-packet detection is not enabled. This is the default.

Example **set detect-end-of-packet = yes**

Location CONNECTION:tcp-clear-options

detection-interval

Description Specifies the detection interval in milliseconds for continuous detection. The system attempts to detect any abnormality at the defined milliseconds interval.

Usage The recommended value is 100ms (the default) for control modules. Valid values range from 0 (zero) to 65535.

Example **set detection-interval = 100**

Location SYSTEM INTEGRITY:integrity-config

device-address

Description Specifies the three-part address of a module, in the format { *shelf slot item* }:

Syntax element	Description
shelf	Specifies the shelf in which the item resides. For a Stinger unit, the shelf number is always 1.

Syntax element	Description
slot	Specifies the number of the item's slot physical or virtual slot, as follows: ■ *On a Stinger FS or Stinger FS+,* line interface module (LIM) slots are numbered from 1 to 16 in the front of the unit, starting on the left. Slots 8 and 9 in the center are reserved for the control modules. Trunk modules reside in the center slots at the back of the unit, which have the virtual slot numbers 17 and 18. ■ *On a Stinger LS or Stinger RT,* LIM slots are numbered from 1 to 5 (Model 1) or from 1 to 7 (Model 2), starting on the left. Slots 8 and 9 are reserved for the control modules, and slots numbered 17 and 18 at the far right are reserved for trunk modules. All physical slots are in the front of the unit. ■ *On a Stinger MRT,* the built-in ADSL LIM resides in virtual slot 1, and the built-in control module is in virtual slot 8. The built-in STS-3 trunk interface resides in virtual slot 17, and the single trunk module is in a physical slot numbered slot 18.
item	Specifies the item on the module. Items are numbered starting with 1 for the topmost or leftmost item on the module. An item number of 0 (zero) denotes the entire slot. For example: ■ In a Stinger FS, Stinger FS+, Stinger LS, or Stinger RT, line 48 on a LIM in slot 2 has the following address: `{ 1 2 48 }`. ■ In a Stinger MRT, line 4 on a T1 trunk module has the following address: `{ 1 18 4 }`

Usage In most cases, the `device-address` value is obtained from the system. However, you can clone a profile by reading an existing one and changing its device address. Valid values are as follows:

- For `shelf`—`shelf-1` only
- For `slot`—a value from `slot-1` through `slot-18`
- For `item-number`—an integer in the range 0 (indicating the entire slot) through the total number of interfaces on the module

Example The following example shows a listing of the device address for interface 37 on a LIM in slot 9 of a Stinger FS, and demonstrates how to change the slot number to 2:

```
admin> list device-address
[in ADMIN-STATE-PHYS-IF { shelf-1 slot-9 37 }]
shelf = shelf-1
slot = slot-9
item-number = 37

admin> set slot = slot-2
```

As an alternative, you can use only the `set` command. For example:

```
admin> set device-address slot = slot-2
```

Location ADMIN-STATE-PHYS-IF
DEVICE-STATE
TRUNK-DAUGHTER-DEV

device-state

Description Read-only. Indicates the current operational state of a device.

Usage The device-state value is read-only. The following are valid values:

For the device-state profile:

- down-dev-state—Indicates that the device is in a nonoperational state.
- up-dev-state—Indicates that the device is in normal operations mode.
- none-dev-state—Indicates that the device does not currently exist.
- restart-dev-state—The addressed device is being restarted.

For the trunk-daughter-dev profile:

- trunk-daughter-oper-state-down—The device is down, a non-operational state.
- trunk-daughter-oper-state-up—The device is in a normal operations mode.
- trunk-daughter-oper-state-none—The device does not exist; the daughter card slot is empty.
- trunk_daughter_number-of-states

Example device-state = up-dev-state

Location DEVICE-STATE
TRUNK-DAUGHTER-DEV

device-type

Description Type of device advertised in Integrated Local Management Interface (ILMI). *ILMI is not supported with the current software version.*

Usage Valid values are as follows:

- private (default)
- public

Example **set device-type = public**

Location ATM-IF-CONFIG:extension-config

dev-line-state

Description Read-only. Indicates the status of the ADSL, HDSL2, SDSL, or SHDSL interface.

Usage The dev-line-state value is read-only. Valid values depend on the profile.

- ADSL values:
  - down—There is no connection, or the interface is disabled.

  - `activation`—The interface is attempting to train but is not yet detecting a modem at the other end.
  - `training`—The interface is training with a modem on the other end.
  - `port-up`—The interface successfully trained up.
  - `failed`—The interface failed training. (A log message specifies the reason.)
  - `loopback`—The interface is in loopback test mode.
- SDSL values:
  - `config`—The interface is being configured.
  - `deactivate`—The interface is transitioning to the DOWN state.
  - `inactive`—The interface is starting up.
  - `activating`—The interface is waiting for customer premises equipment (CPE) to start up.
  - `active-rx`—The interface is waiting for four-level transmission from CPE.
  - `port-up`—The interface is connected to CPE, and data can be transferred.
  - `portup-pending-deactive`—The interface has a loss-of-signal or noise-margin error (noise greater than -5dB).
  - `deactivate-lost`—The interface is waiting for loss-of-signal timer to expire.
  - `hardware-test`—A hardware self-test is in progress.
  - `out-of-service`—The interface is out of service.
  - `tip-ring-detect`—The interface is running a simple internal bit-error rate test (BERT) to detect correct tip-ring orientation.
  - `forever-bert`—The interface is running an internal BERT to detect correct tip-ring orientation.
  - `tip-wait1`—The interface is running an internal BERT to detect correct tip-ring orientation.
  - `tip-hunt`—The interface is running an internal BERT to detect correct tip-ring orientation.
  - `tip-wait2`—The interface is running an internal BERT to detect correct tip-ring orientation.
  - `cell-delineation`—The interface is attempting to recover ATM cells (idle cells as well as data cells) from the receiving octets. If recovery is successful, the interface transitions to the UP state.
  - `deactivate-wait`—The interface is waiting to transition to the DOWN state.
- SHDSL and HDSL2 values:
  - `port-up`—Connected to CPE and data can be transferred.
  - `test`—Line is in test mode.
  - `start-up-handshake`—Startup handshake is occurring.
  - `start-up-training`—Startup training is occurring.
  - `start-up-download`—Startup download is occurring.
  - `idle`—Line is idle.
  - `down`—Line is not currently operational.
  - `out-of-service`—Line is out of service.

- unknown—Line status is unknown.
- analog-loopback—Line is in analog loopback mode.
- digital-loopback—Line is in digital loopback mode.

Example dev-line-state = port-up

Location AL-DMT-STAT:physical-status
HDSL2-STAT:physical-status
SHDSL-STAT:physical-status
SDSL-STAT:physical-status

dial-number

Description *Not supported.* Specifies the type of telephone number used to dial out a call.

Location CONNECTION

dial-on-broadcast

Description *Not supported.* Specifies whether the system attempts to establish a bridged connection on the interface when it receives a frame whose media access control (MAC) address is set to broadcast.

Location CONNECTION:bridging-options
ETHERNET:bridging-options

dialout

Description Specifies the password for a dial-out pseudo-user.

Usage Enter a password of up to 21 characters.

Example **set dialout = mypass**

Location EXTERNAL-AUTH:password-profile

dialout-auth-lns

Description *Not supported.* Specifies the ability of the Layer 2 Tunneling Protocol (L2TP) access concentrator (LAC) to accept dial-out requests only from the L2TP network server (LNS) that was authenticated during the tunnel setup.

Usage Valid values are as follows:

- yes—Restricts the LAC to accept dial-out requests from only the LNS that was authenticated during tunnel setup.
- no—Allows the LAC to accept dial-out requests from an LNS other than the one that was authenticated during tunnel setup.

Location L2-TUNNEL-GLOBAL:l2tp-config

dialout-number-auth

Description Enables or disables calling line ID (CLID) authorization for the dial-out number passed by the Layer 2 Tunneling Protocol (L2TP) network server (LNS).

Usage Valid values are as follows:

- `no`—Disables CLID authorization. This is the default.
- `yes`—Enables CLID authorization.

Example `set dialout-numer-auth = yes`

Location `TUNNEL-SERVER:dialout-options`

dialout-poison

Description Enables or disables advertisement of dial-out routes when no trunks are available. Disabling advertisement (the `yes` setting) allows a redundant unit to take over.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—Stop advertising the system's IP dial-out routes if no trunks are available.
- `no`—Continue to advertise the unit's dial-out routes, even if no trunks are currently available. This is the appropriate setting for Stinger units, which do not use dial-out routes.

Example `set dialout-poison = no`

Location `IP-GLOBAL`

dialout-routes

Description Specifies the password for the dial-out route's pseudo-user.

Usage Enter a password of up to 21 characters.

Example `set dialout-routes = mypass`

Location `EXTERNAL-AUTH:password-profile`

dialout-send-profile-name

Description *Not supported.* Specifies whether the Layer 2 Tunneling Protocol (L2TP) network server (LNS) can send the `connection` profile name vendor-specific attribute along with the dial-out request.

Location `L2-TUNNEL-GLOBAL:l2tp-config`

diff-delay-max

Description Specifies the maximum differential delay of an inverse multiplexing over ATM (IMA) group in milliseconds.

Usage Specify a number between from 0 (zero) to 281. The default is 25. To determine the maximum differential delay among the lines in a group, subtract the smallest delay from the largest.

Example The following command sets the maximum differential delay for an IMA group in which line 1 has a delay of 10ms, line 2 has a delay of 25ms and line 3 has a delay of 5ms. The maximum differential delay among the three lines is 25 minus 5, or 20ms.

```
set diff-delay-max = 20
```

Location IMAGROUP

diff-delay-max-obs

Description Read-only, Indicates the latest maximum differential delay observed (in milliseconds) between the links having the least and most link propagation delay, among the receive links that are currently configured in the inverse multiplexing over ATM (IMA) group.

Usage The diff-delay-max-obs value is read-only. Valid values range from 0 (zero) to 2147483647.

Example diff-delay-max-obs = 0

Location IMA-GROUP-STAT

direct

Description *Not used.*

direct-access

Description *Not used.*

directed-broadcast-allowed

Description Enables or disables forwarding of directed broadcast traffic onto the interface and its network.

Denial-of-service attacks known as “smurf” attacks typically use Internet Control Message Protocol (ICMP) Echo Request packets with a spoofed source address and packets directed to IP broadcast addresses. These attacks are intended to degrade network performance, possibly to the point that the network becomes unusable. This setting can prevent the IP router from being used as an intermediary in this type of denial-of-service attack launched from another network

Usage Valid values are as follows:

- `yes` (the default)—Allows the system to forward directed broadcasts received from another network.
- no—Prevents the router from forwarding directed broadcasts it receives from another network.

Note To protect against the router being used in a denial-of-service attack, you must prevent the router from forwarding directed broadcasts it receives from another network on *all* IP interfaces in the system. For example, you must disable directed broadcasts on both control-module interfaces (so the broadcasts are still disabled if controller switchover occurs), as well as the IP interfaces of a router module.

Example `set directed-broadcast-allowed = no`

Location `IP-INTERFACE`

direction-mode

Description Specifies (in the `aps-config` profile) and indicates (in the `aps-stat` profile) whether the protection group's mode of direction is unidirectional or bidirectional in automatic protection switching (APS).

Usage Valid values are as follows:

- `unidirectional`—The end having the failure switches to the protection channel without communicating to the other end first. The decision to switch is unilateral. This is the default and is recommended for APS 1+1.
- `bidirectional`—When a failure occurs, it is communicated to the opposite end and both ends determine whether to switch to the protection channel.

Example `set direction-mode = unidirectional`

Location `APS-CONFIG`
`APS-STAT`

disabled-count

Description *Not used.*

disconnect-on-auth-timeout

Description Specifies how the Stinger unit disconnects a PPP connection if it times out while waiting for RADIUS authentication.

Usage Valid values are as follows:

- `yes` (the default)—Instructs the unit to hang up a PPP connection if RADIUS authentication times out.
- `no`—Instructs the unit to disconnect cleanly after a RADIUS time-out.

Example `set disconnect-on-auth-timeout = yes`

Location ANSWER-DEFAULTS:ppp-answer
CONNECTION:ppp-options

dlci

Description Specifies or indicates, according to the profile, a data link connection identifier (DLCI) number for a frame relay connection.

A DLCI is not an address, but a local label that identifies a logical link between a device and the frame relay switch. The switch uses the DLCI to route frames through the network, and the DLCI can change as frames are passed through multiple switches.

Usage Valid values are as follows:

- For a fr-options subprofile, specify an integer from 16 through 991. The default is 16. Ask your frame relay network administrator for the value you must enter.
- For a dlci-ident or dlci-member[n] subprofile, this setting is a read-only value up to 15 characters long.

Example `set dlci = 17`

Dependencies Consider the following:

- For dlci to apply, fr-direct-enabled must be set to no.
- The dlci setting is ignored for a connection profile that has circuit-type set to svc. For a switched virtual circuit (SVC), the DLCI value is assigned to the circuit by the network. The range of DLCI values for circuits is shared between permanent virtual circuits (PVCs) and SVCs, and is managed between the network and user entities.

Location CONNECTION:fr-options
FRDLCI-STAT:dlci-ident
FRPVC-STAT:dlci-members:dlci-member:[*n*]

dlci-route-id

Description Read-only. Indicates the system route ID value associated with a DLCI.

Usage Read-only numeric value with a range of 0 to 65535.

Example dlci-route-id = 1818

Location FRDLCI-STAT:dlci-ident
FRPVC-STAT:dlci-members[*n*]

dmmall-input-imp

Description Specifies the input impedance, in kilohms, for a digital multimeter (DMM) copper loop test (CLT).

Usage Specify either 100 or 1000kohms.

Example `set dmmall-input-imp = 100`

Location CLT-COMMAND

dmmall-period

Description Specifies the amount of time, in tenths of a second, during which measurement is made in a digital multimeter (DMM) copper loop test (CLT).

Usage Specify a number between 0 (zero) and 5. The default value, 0, sets the maximum time period. Values between 1 and 5 set times between 100ms and 500ms.

Example `set dmmall-period = 1`

Location CLT-COMMAND

dmm-all-r-s

Description Read-only. Indicates the ring-to-shield measurement data for a copper loop test (CLT) module digital multimeter test.

Usage Read-only numeric value with a range of 0 to 4294967295. Volts dc and volts ac are in millivolts. Resistance is in ohms. Capacitance is in picofarads.

Example `dmm-all-r-s = 1220`

Location CLT-RESULTS

dmm-all-t-r

Description Read-only. Indicates the tip-to-ring measurement data for a copper loop test (CLT) module digital multimeter test.

Usage Read-only numeric value with a range of 0 to 4294967295. Volts dc and volts ac are in millivolts. Resistance is in ohms. Capacitance is in picofarads.

Example `dmm-all-t-r = 1220`

Location CLT-RESULTS

dmm-all-t-s

Description Read-only. Indicates the tip-to-shield measurement data for a copper loop test (CLT) module digital multimeter test.

Usage Read-only numeric value with a range of 0 to 4294967295. Volts dc and volts ac are in millivolts. Resistance is in ohms. Capacitance is in picofarads.

Example `dmm-all-t-s = 1220`

Location CLT-RESULTS

dmmall-type

Description Specifies the type of digital multimeter (DMM) cooper loop test (CLT) to run for all measurements: tip to ring, tip to ground, and ring to ground.

Usage Valid values are as follows:

- `resistance`—Measures dc resistance to detect shorts and leakage between tip and ring, tip and ground, and ring and ground.
- `dc-voltage`—Measures dc voltage to detect unwanted foreign voltage.
- `ac-voltage`—Measures ac voltage to detect unwanted foreign voltage.
- `capacitance`—Measures actual capacitance and estimated length for loop-length estimation.

Example `set dmmall-type = resistance`

Location `CLT-COMMAND`

dmmcap-period

Description Specifies the amount of time, in tenths of a second, during which measurement is made in a digital multimeter (DMM) copper loop test (CLT) that measures capacitance.

Usage Specify a number between 0 (zero) and 5. The default value, 0, sets the maximum time period. Values between 1 and 5 set times between 100ms and 500ms.

Example `set dmmcap-period = 2`

Location `CLT-COMMAND`

dmmdcd-impedance

Description Specifies the output impedance, in kilohms, to be used in a digital multimeter (DMM) copper loop test (CLT) that measures loop resistance based on a dc Thevenin circuit.

Usage Specify a number between 10 and 1000. The default is 10.

Example `set dmmdcd-impedance = 1000`

Location `CLT-COMMAND`

dmmdcd-period

Description Specifies the amount of time, in tenths of a second, during which measurement is made in a digital multimeter (DMM) copper loop test (CLT) that measures loop resistance based on a dc Thevenin circuit.

Usage Specify a number between 1 (one) and 5. Each unit represents 100 milliseconds. Enter the default 0 (zero) value for the maximum time.

Example `set dmmdcd-period = 1`

Location CLT-COMMAND

dmmdcd-voltage

Description Specifies the test voltage to be used in a digital multimeter (DMM) copper loop test (CLT) that measures loop resistance based on a dc Thevenin circuit.

Usage Specify a number between -230 and 230. The default is 0 (zero).

Example `set dmmdcd-voltage = 230`

Location CLT-COMMAND

dmm-lead

Description Specifies the digital multimeter (DMM) measurement leads to be used in a copper loop test (CLT).

Usage Valid values are as follows:

- `tip-ring`—Measures between tip and ring (lead T-R.) This is the default.
- `tip-sleeve`—Measures between tip and ground (lead T-S).
- `ring-sleeve`—Measures between ring ground (lead R-S).

Example `set dmm-lead = tip-sleeve`

Location CLT-COMMAND

dmm-result

Description Read-only. Indicates the results of a digital multimeter (DMM) copper loop test (CLT).

Usage The `dmm-result` value is read-only. V

- Voltage ac and dc are reported in millivolts.
- Resistance is reported in ohms.
- Capacitance is reported in nanofarads.

Example `dmm-result = 0`

Location CLT-RESULT

dmm-type

Description Specifies the type of digital multimeter (DMM) copper loop test (CLT) to run.

Usage Valid values are as follows:

- `resistance` (the default)—Measures dc resistance to detect shorts and leakage between tip and ring, tip and ground, and ring and ground.
- `dc-voltage`—Measures dc voltage to detect unwanted foreign voltage.

- `ac-voltage`—Measures ac voltage to detect unwanted foreign voltage.
- `capacitance`—Measures actual capacitance and estimated length for loop-length estimation.

Example `set dmm-type = capacitance`

Location `CLT-COMMAND`

dns-list-attempt

Description Enables or disables the Domain Name System (DNS) list feature.

DNS lists allow the system to return multiple IP addresses to Telnet clients at sites where DNS responds with more than one address. The system stores the hostname/address associations in the local DNS table in RAM, overwriting configured addresses in that table or addresses received from earlier DNS queries. To prevent stale entries in the table in RAM, the system clears the number of addresses exceeding the amount specified by `dns-list-size`.

If the DNS list feature is disabled, the system stores a single returned address in the local DNS table in RAM, clearing the remaining 34 hostname/address fields.

Usage Valid values are as follows:

- `yes`—Returns multiple addresses if available, up to the limit specified by `dns-list-size`.
- `no`—Returns only one address from any successful DNS query. This is the default.

Example `set dns-list-attempt = yes`

Location `IP-GLOBAL`

dns-list-size

Description Specifies the maximum number of hosts in a Domain Name System (DNS) list, up to 35.

If the DNS list feature is enabled and DNS returns multiple addresses, this setting determines the number of addresses displayed for a Telnet client.

Usage Enter a number from 0 to 35. The default is 6.

Example `set dns-list-size = 10`

Dependencies If `dns-list-attempt` is set to `no`, `dns-list-size` has no effect.

Location `IP-GLOBAL`

dns-primary-server

Description Specifies the IP address of the primary local Domain Name System (DNS) server to use for lookups.

Usage Specify an IP address in dotted decimal notation.

Example `set dns-primary-server = 2.2.2.2/28`

Dependencies When specified in a `vrouter` profile, this DNS setting is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router uses the DNS settings defined in the `ip-global` profile.

Location `IP-GLOBAL`
`VROUTER`

dns-secondary-server

Description Specifies the IP address of the secondary local Domain Name System (DNS) server to use for lookups. This DNS setting is used only if the primary server is not found.

Usage Specify an IP address in dotted decimal notation.

Example `set dns-secondary-server = 2.2.2.4/28`

Dependencies When specified in a `vrouter` profile, this DNS setting is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router use the DNS settings defined in the `ip-global` profile.

Location `IP-GLOBAL`
`VROUTER`

dns-server-query-type

Description Specifies how to query a Domain Name System (DNS) server.

Usage Valid values are as follows:

- `udp`—Queries the DNS server first by means of UDP, and then, if the TC-bit is set and a retry is necessary, by means of TCP. This is the default.
- `udp-ignore-tc-bit`—Queries the DNS server only by means of UDP.
- `tcp`—Queries the DNS server only by means of TCP.
- `tcp-keep-open`—Queries the DNS server by means of TCP only and then attempts to keep the TCP session established, rather than opening a new TCP session for each additional query.

Example `set dns-server-query-type = tcp`

Location `IP-GLOBAL`

domain-name

Description Specifies the primary domain name to use for Domain Name System (DNS) lookups. The system appends this domain name to hostnames when performing lookups.

Usage Specify a domain name.

Example `set domain-name = abc.com`

Dependencies When specified in a `vrouter` profile, this DNS setting is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router use the DNS settings defined in the `ip-global` profile.

Location `IP-GLOBAL`
`VROUTER`

domestic-enabled

Description Read-only. Indicates whether a Stinger unit can operate domestically.

Usage Read-only parameter with the following possible values:

- `no`—Unit cannnot operate domestically.
- `yes`—Unit can operate domestically.

Example `domestic-enabled = no`

Location `BASE`

door-open

Description An alarm was received from the remote shelf fan to indicate that the door is open.

Usage This parameter is read-only. Valid values are as follows:

- `yes`—An alarm was received.
- `no` (the default)—No alarms were received.

Location `REMOTE-SHELF-STAT`

do-version-fallback

Description Specifies whether the Stinger unit automatically falls back to the earlier version of inverse multiplexing ATM (IMA) if the far-end Stinger unit is detected to be running the earlier version.

Usage Valid values are as follows:

- `yes`—Specifies that the unit falls back from version 1.1 to version 1.0.
- `no`—Specifies that the unit does not fall back, but moves to the `configAborted` state. This is the default.

Example `set do-version-fallback = yes`

Location `IMAGROUP`

down-cost

Description Specifies the Open Shortest Path First (OSPF) output cost when the link is physically down but virtually up.

Usage Specify a value from 1 through `16777215` (the default).

Example `set down-cost = 1000`

Location `IP-INTERFACE:ospf`
`CONNECTION:ip-options:ospf-options`

down-metric

Description Specifies the routing metric, typically measured in number of hops, to be used in the routing table entry created for this connection when the connection is inactive.

Usage Numeric parameter with a range of 1 to 15 hops. Default value is 7.

Example `set down-metric = 12`

Location `CONNECTION:ip-options`

down-preference

Description Specifies a preference value for a route when the interface is unavailable. The system uses this value to determine when to bring a route online.

Usage Specify a number from 0 to 214748364. The lower the preference, the more likely the system is to bring the route online when interface is unavailable. The default is 120.

Example `set down-preference = 255`

Location `CONNECTION:ip-options`

downstream-end-bin

Description Specifies the ending frequency bin (interval) for downstream transmission.

The upstream and downstream start and end bins define the frequency ranges for upstream and downstream data. The frequency for a particular bin is defined as follows:

`frequency = bin number x 4.3125kHz`

You can use these parameters to adjust the frequency content of the ADSL signals. For example, splitterless ANSI discrete multitone (DMT) can be supported by appropriate adjustment of the frequency range.

Usage Valid values are as follows:

- For 12-port and 24-port line interface modules (LIMS), specify a number from 32 to 255. The default is 255.
- For 48-port LIM, specify a number from 37 to 127. The default is 127.

Example `set downstream-end-bin = 50`

Dependencies You must adjust the maximum and minimum bit rate parameters to match the frequency range defined by the start and end bin numbers.

Location AL-DMT:line-config

down-stream-latency

Description Read-only. Indicates the operational downstream latency setting.

Usage The down-stream-latency value is read-only. Valid values are as follows:

- none—Indicates that the line is not operational.
- fast—Indicates that the setting for least downstream delay is in effect.
- interleave—Indicates that interleave latency (greater than fast) in is effect

Example down-stream-latency = interleave

Location AL-DMT-STAT:physical-status

down-stream-rate

Description Read-only. Indicates the downstream rate, in bits per second, for an SDSL line interface module (LIM) and port reported on.

Usage Read-only parameter with a numeric value of 0 to 4294967295bps.

Example down-stream-rate = 18282

Location SDSL-STAT:physical-status

down-stream-rate-fast

Description Read-only. Indicates the downstream data rate in bits per second when latency is fast.

Usage The down-stream-rate-fast value is read-only. Zero (0) means that latency is set to interleave or that the data rate is unknown.

Example down-stream-rate-fast = 0

Location AL-DMT-STAT:physical-status

down-stream-rate-interleaved

Description Read-only. Indicates the downstream data rate in bits per second when latency is interleave.

Usage The down-stream-rate-interleaved value is read-only. Zero (0) means that latency is set to fast or the data rate is unknown.

Example down-stream-rate-interleaved = 2944000

Location AL-DMT-STAT:physical-status

downstream-start-bin

Description Specifies the starting downstream frequency bin (interval).

Usage Specify a number from 32 to 255. The default is 32.

Example `set downstream-start-bin = 35`

Location `AL-DMT:line-config`

dr-capable

Description Enables/disables the neighboring router from being the designated router (`yes` or `no`).

Usage Valid values are as follows:

- `yes`—Enable.
- `no` (the default)—Disable.

Example `set dr-capable = yes`

Location `OSPF-NBMA-NEIGHBOR`

drop-source-routed-ip-packets

Description Enables or disables forwarding of IP packets that have the source route option set.

Usage Valid values are the following.

- `yes`—Drop all packets that have a Loose or a Strict source route among their IP options.
- `no` (the default)—Forward all source-routed packets, as described in RFC 1812.

Example `set drop-source-routed-ip-packets = no`

Location `IP-GLOBAL`

dscp

Description Specifies the differentiated services code point (DSCP) value.

Usage Specify a value from 00 (the default) to 3F (hexadecimal). DSCP marking, as defined in RFC 2474, uses the first 6 bits in the second octet in the IP datagram to create values (from 00 through 3F) specifying different classes of service:

Bit positions	TOS-precedence (RFC 791)	DSCP (RFC 2474)
0 to 2	Precedence (eight levels of priority)	DSCP value
3	Delay (normal or low)	DSCP value (continued)
4	Throughput (normal or high)	DSCP value (continued)

Bit positions	TOS-precedence (RFC 791)	DSCP (RFC 2474)
5	Reliability (normal or high)	DSCP value (continued)
6 to 7	Reserved	Reserved

Example `set dscp = 3f`

Dependencies For this setting to apply, you must set the `marking-type` parameter to `dscp`. In addition, type-of-service (TOS) and IP routing must be enabled in the `connection` profile, or TOS must be specified as the filter type in the `filter` profile.

Location `CONNECTION:ip-options:tos-options`
`FILTER:input-filters:tos-filter`
`FILTER:output-filters:tos-filter`

dsl-thresh-trap-enabled

Description Enables or disables sending of DSL traps (notifications) to the identified host.

Usage Specify one of the following values:

- `yes`—The system sends DSL traps to the identified host.
- `no`—The system does not send DSL traps to the identified host.

Example `set dsl-thresh-trap-enabled = yes`

Location `TRAP`

dst-port-cmp

Description Specifies whether a filter tests for destination port numbers that are equal to a specified `dest-port` value, or port numbers that are less than, greater than, or not equal to the specified value.

Usage Valid values are as follows:

- `none` (the default)—Does not compare destination port numbers.
- `less`—Matches destination port numbers less than the `dest-port` value.
- `eql`—Matches destination port numbers equal to the `dest-port` value.
- `gtr`—Matches destination port numbers greater than the `dest-port` value.
- `neq`—Matches destination port numbers not equal to the `dest-port` value.

Example `set dst-port-cmp = eql`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `ip-filter` or `tos-filter`.

Location `FILTER:input-filters[`*n*`]:ip-filter`
`FILTER:output-filters[`*n*`]:ip-filter`
`FILTER:input-filters[`*n*`]:tos-filter`
`FILTER:output-filters[`*n*`]:tos-filter`

dual-link

Description *Not currently use*d.

Location IDSL:line-interface

dual-slot-t1-enabled

Description Indicates whether all 8 T1 ports on the MRT trunk module are enabled.

Usage The following read only values are valid:

- yes—All T1 ports are enabled.
- no—All T1 ports are not enable.

Dependencies This parameter is only visible on a Stinger MRT.

Location BASE

duplex-mode

Description Specifies the operating mode of the Stinger Ethernet LAN interface.

Usage Valid values are the following:

- full-duplex (the default)—Provides higher throughput.
- half-duplex—Enables the unit to operate with older equipment that does not support full duplex.

Example `set duplex-mode = half-duplex`

Dependencies The system can determine the proper setting for this parameter when auto-negotiate is set to yes.

Location ETHERNET

dynamic-algorithm

Description Specifies the algorithm to use to calculate the average link utilization (ALU) over a specified number of seconds (seconds-history). After calculating the average, the Stinger unit compares it to the target-utilization value. If the average exceeds or falls below the target for a specified number of seconds, the unit adjusts the bandwidth of the connection.

Usage Valid values are as follows:

- quadratic (the default)—Specifies that more weight is given to recent samples of bandwidth usage than to older samples. The weighting grows at a quadratic rate.
- linear—Specifies that more weight is given to recent samples of bandwidth usage than to older samples. The weighting grows at a linear rate.
- constant—Specifies that equal weight is given to all samples.

Example `set dynamic-algorithm = linear`

Location ANSWER-DEFAULTS:mpp-answer
CONNECTION:mpp-options

E

early-packet-discard

Description Specifies whether all cells in an asynchronous transfer mode (ATM) packet are discarded if the first cell cannot be queued.

Usage Valid values are as follows:

- yes—Specifies that the cell and all remaining cells are discarded. This is the default.
- no—Specifies that the cell and all remaining cells are not discarded. However, when the end of the current packet is detected, all the cells in the next packet are discarded. This is the default.

Example `set early packet-discard = no`

Dependencies If encapsulation-protocol is not set to atm or atm-circuit, the early-packet-discard setting does not apply.

Location ATM-QOS

elapsed-seconds

Description Read-only. Indicates the number of seconds that have elapsed in the current measurement interval of 15 minutes.

Usage The elapsed-seconds value is read-only. Valid values range from 0 (zero) to 2147483647.

Example elapsed-seconds = 0

Location DS1-ATM-STAT:ima-link-statistic

enable

Description Enables or disables a feature:

- In a trunk-cac-config subprofile, specifies whether connection admission control (CAC) is enabled on the port specified in port-num in this subprofile.
- In a bir-options subprofile, specifies whether bridged IP routing (BIR) is enabled on an interface.
- In a ospf-global profile, globally enables or disables Open Shortest Path First (OSPF) operation.
- In a circuit-id subprofile, enables or disables the circuit identifier suboption of DHCP option 82.
- In a remote-id subprofile, enables or disables the remote identifier suboption of DHCP option 82.

Usage Valid values are as follows:

- For the `trunk-cac-config` subprofile:
  - `yes`—Enables the feature. This is the default in `trunk-cac-config` subprofile.
  - `no`—Disables the feature.
- For the `bir-options` subprofile:
  - `yes`—Enables the feature.
  - `no`—Disables the feature. This is the default in a `bir-options` subprofile.
- For the `ospf-global` subprofile:
  - `yes`—Globally enables OSPF.
  - `no`—Globally disables OSPF. This is the default.
- For the `circuit-id` subprofile:
  - `yes`—Enables the circuit identifier suboption of DHCP option 82. The IP2000 encodes the `station` value (the hostname) of the `connection` or RADIUS profile that defines the PVC on which the DHCP client-to-server packet was received. This ensures that DHCP responses are sent back to the proper circuit.
  - `no` (the default)—Disables the circuit identifier suboption of DHCP option 82.
- For the `remote-id` subprofile:
  - `yes`—Enables the remote identifier suboption of DHCP option 82. The IP2000 encodes a globally unique identifier of the remote CPE from which it received a DHCP client-to-server packet, to ensure that DHCP responses are sent back to the proper remote client. The IP2000 can use this field in addition to or instead of the `circuit-id` field.
  - `no` (the default)—Disables the remote identifier suboption of DHCP option 82.

Example `set enable = no`

Dependencies For the `trunk-cac-config` subprofile, when the OC3 interface is disabled, it transmits the OC3 Idle signal to the remote end.

Note The `trunk-cac-config:enabled` parameter was previously located in the `atm-config` profile. Its use in that location has been deprecated.

Dependencies For the `ospf-global` subprofile consider the following:

- After enabling OSPF routing, you must reset the system. The only time the system brings up OSPF routing on an interface is after a reset. As the system starts up with OSPF enabled on one or more interfaces, it begins to form adjacencies and build its routing table.
- If you are modifying many OSPF-related profiles, you can use the `enable` value to prevent OSPF from reinitializing several times. In this case, set `enable` to `no`, write the OSPF changes, and then set `enable` to `yes` again.

Location `CONNECTION:bir-options`
`HIGH-SPEED-SLOT-STATIC-CONFIG:trunk-cac-config`
`IP-GLOBAL:ospf-global`
`IP-GLOBAL:bootp-relay:relay-agent-information:circuit-id`
`IP-GLOBAL:bootp-relay:relay-agent-information:remote-id`

enable-centralized-detection

Description Specifies whether central integrity checking is enabled by the primary control module for the entire system.

Usage Valid values are as follows:

- `yes`—Enables central integrity checking.
- `no` (the default)—Disables central integrity checking. By default, line interface modules (LIMs) perform error correction, which is usually sufficient for most applications. .

Example `set enable-centralized-detection = yes`

Location `SYSTEM-INTEGRITY`

enable-continuous-detection

Description Specifies whether continuous switching fabric testing, detection, and correction are enabled.

Usage Valid values are as follows. The recommended setting is `yes` for control modules and `no` for line interface modules (LIMs).

- `yes`—Enables continuous switching fabric testing, detection, and correction.
- `no` (the default)—Disables continuous switching fabric testing, detection, and correction.

Example `set enable-continuous-detection = no`

Location `SYSTEM-INTEGRITY:integrity-config`

enable-core-dump

Description Enables or disables a core dump on system failure.

Usage Specify one of the following values:

- `yes`—Enables a core dump on system failure.
- `no`—Disables a core dump on system failure. This is the default value.

Example `set enable-core-dump = yes`

Location `DEBUG`

enabled

Description Specifies whether a feature, interface, line, or test is enabled or disabled.

Following are the results of `enabled` settings in particular profiles:

- If `enabled` is set to `no` in the `ethernet` profile, packets routed to and received by the interface are discarded.

- When an OC3 interface is disabled, it transmits the OC3 idle signal to the remote end.
- In the `dns-local-table` subprofile of the `ip-global` profile, the `enabled` setting specifies whether the local Domain Name System (DNS) table in RAM is available when a DNS query fails:
  - If `enabled` is set to `no` (the default) and a DNS query times out, the request fails.
  - If `enabled` is set to `yes`, the Stinger unit attempts to resolve the query by using the host-to-address mapping in the DNS table in RAM. If the query has an entry in the table in RAM, the system returns the associated IP address(es) to the requester.
- If `enabled` is set to `yes` in the `continuity-config` or `loopback-config` subprofile of the `atm-oam` profile, the system resets the parameter to its `no` default when the continuity or loopback tests are complete.
- In the `remote-shelf-config` profile, the `enabled` setting causes a control link to be established between the host and the remote shelf.

Usage This parameter is set according to the profile that contains it.

- In all profiles except `sntp-info`, valid values are as follows:
  - `yes`—Enables the feature, interface, line, or test. This is the default for the `atm-internal` profile, `ethernet` profile, `snmp` profile, `tunnel-server` profile, `mp-options` subprofile, `ppp-answer` subprofile, and `ppp-options` subprofile.
  - `no`—Disables the feature, interface, line, or test. This is the default for all other profiles.
- Valid values for the `sntp-info` profile are as follows:
  - `sntp-enabled`—Specifies that the time is updated at each request to a server no matter what the time offset is between the Simple Network Time Protocol (SNTP) server and the Stinger unit.
  - `sntp-passive`—Specifies that an update occurs only when the `update-threshold` value has been reached.
  - `sntp-disabled` (the default)—Specifies that no updates occur.

Example `set enabled = yes`

Location `ALARM`
`AL-DMT`
`ANSWER-DEFAULTS:ppp-answer`
`ATM-INTERNAL`
`ATM-INTERNAL:traffic-shapers`
`ATM-OAM:continuity-config`
`ATM-OAM:loopback-config`
`CONNECTION:mp-options`
`CONNECTION:ppp-options`
`DS1-ATN`
`DS3-ATM`
`DSL-THRESHOLD`
`E3-ATM`
`ETHERNET`
`HDSL2`

```
IDSL:line-interface
IP-GLOBAL:dns-local-table
IP-GLOBAL:sntp-info
OC3-ATM
PRIVATE-ROUTE-TABLE
REMOTE-SHELF-CONFIG
SDSL
SHDSL
SNMP
SYSTEM:traffic-shapers
TERMINAL-SERVER
TUNNEL-SERVER
TUNNEL-SERVER:dialout-options
VLAN-ETHERNET
```

enable-gdb

Description Enables or disables the GNU debugger (GDB).

Usage Specify one of the following values:

- yes—Enables the debugger on system failure.
- no—Disables the debugger on system failure. This is the default value.

Example `set enable-GDB = yes`

Location DEBUG

enable-vacm

Description Enables or disables the view-based access control model (VACM).

Usage Valid values are as follows:

- `yes`—Specifies that each object in each incoming Get, Set, GetNext, and GetBulk request, and each object in the `sysTrapOID` of each outgoing trap, is verified for VACM access.
- `no` (the default)—Disables VACM, enabling access to all objects in the system. However, security based on SNMPv1 community strings and the SNMP version 3 user-based security modem (SNMPv3 USM) is still used to determine access.

Example `set enable-vacm = yes`

Location SNMP

encapsulation-protocol

Description Specifies the encapsulation method to use for a connection. Both sides of the connection must support the specified encapsulation method.

Usage Specify one of the following values:

- `mpp`—*Not supported.*

- mp—*Not supported.*
- ppp—Point-to-point protocol (PPP). Specify this value for PPP clients.
- frame-relay— Frame relay.
- frame-relay-circuit— Frame relay switching between interfaces.
- tcp-raw—*Not supported.*
- atm—Asynchronous Transfer Mode (ATM).
- atm-frame-relay-circuit—ATM-frame relay switching between interfaces.
- atm-circuit—ATM-to-ATM switching between interfaces.
- atm-ima—Inverse multiplexing over ATM (IMA) interfaces.

Example `set encapsulation-protocol = ppp`

Location CONNECTION

encoding

Description *Not currently used.* Specifies the Asynchronous Transfer Mode (ATM) layer 1 line encoding used for the physical link(s).

Usage Valid values are as follows:

- ami—Specifies alternate mark inversion (AMI), a signaling method in which the 1 bits have alternating priority.
- b8zs (the default)—Specifies bipolar 8-zero substitution (B8ZS), an encoding method in which an alternating positive and negative voltage represents 1 (one), no voltage represents 0 (zero), and at least one bit out of every eight must be a 1.
- hdb3—Specifies high-density bipolar 3 (HDB3).

Example `set encoding = ami`

Location DS1-ATM:line-config

end-of-packet-pattern

Description Specifies the pattern to be matched for end-of-packet detection.

Usage Specify a pattern end text of up to 64 characters.

Example `set end-of-packet-pattern = ##!`

Dependencies The detect-end-of-pattern parameter must be enabled for the end-of-packet-pattern parameter to take effect.

Location CONNECTION:tcp-clear-options

end-port

Dependencies Specifies the last port to be isolated during an isolation or multiport tone test.

Usage Specify a port number between 1 and 72.

Example `set end-port = 3`

Dependencies This parameter is valid only if `specific-ports` is set to `no`.

Location `LINE-TESTS`

enforce-address-security

Description Specifies whether the Stinger unit validates the IP address of an SNMP manager attempting to access the unit. If address security is not enforced, any SNMP manager that presents the appropriate community name is allowed in.

Usage Valid values are as follows:

- `yes`—Specifies that, before allowing access, the Stinger unit compares the source IP address of an SNMP manager to the host addresses specified by `read-access-hosts` and `write-access-hosts`. This is the default.
- `no`—Specifies that the Stinger unit does not compare IP addresses, but uses only the community name to validate SNMP access.

Example `set enforce-address-security = yes`

Dependencies The IP addresses in the `read-access-hosts` and `write-access-hosts` arrays do not restrict access unless `enforce-address-security` is set to `yes`.

Location `SNMP`

enforce-password-check

Description Enables/disables password validation.

Usage Valid values are as follows:

- `yes`—Enables the system to validate that a password is unique and that it is at least 8 characters in length, with at least two numbers and four alphabetical characters.
- `no` (the default)—Disables password validation.

Example `set enforce-password-check = yes`

Location `USER`

engine-boots

Description Read-only. Indicates the number of times that the SNMP agent on a Stinger unit has initialized itself since the SNMP `engine-id` value was last set.

Usage Read-only parameter with a value ranging from 0 to 4294967295.

Example `engine-boots = 12`

Location SNMP

engine-id

Description Specifies an SNMP agents's administratively unique identifier.

Usage Specify a 12-byte hexadecimal value consisting of 24 hexadecimal digits. The default value is 0 (zero).

Example **`set engine-id = 123456789abcdef0fedcba98`**

Location SNMP

error-averaging-period

Description Specifies the time period, in seconds, during which the system calculates the error-moving average for a modem on this line interface module (LIM), before the modem is considered to have failed.

Usage Specify a number in the range 1 through 512. The default value is 10 seconds.

Example **`set error-averaging-period = 15`**

Dependencies The operation of this parameter depends directly on the value of `error-threshold`.

Location `LIM-SPARING-CONFIG:auto-lim-sparing-config:lim-sparing-config[`*n*`]`

error-count

Description Read-only. Indicates the number of errors experienced by each channel.

Usage The `error-count` value is read-only.

Example `error-count = 0`

Location `ADSL-STAT`
`IDSL-STAT`
`SDSL-STAT`
`T1-STAT`

errored-second

Description Indicates the number of 1-second intervals (out of a 15-minute sampling period) during which one or more cyclic redundancy check (CRC) anomalies are declared and/or one or more loss of synchronous word (LOSW) defects are declared.

Usage The `errored-second` value is read-only and helps you monitor interface operations.

Example `errored-second = 3`

Location `HDSL2-STAT:physical-statistic`
`SHDSL-STAT:physical-statistic`

error-threshold

Description Specifies a threshold for errors in the following profiles:

- In the `loopback-config` subprofile of the `atm-oam` profile, `error-threshold` specifies the threshold for the number of loopback cells that can be lost. If the number of cells lost become equal to or greater than the value you specify, a trap is generated.
- In the `lim-sparing-config[n]` subprofile of the `lim-sparing-config:auto-lim-sparing-config` profile, `error-threshold` specifies the number of errors that must occur during the error-averaging period before a modem on this line interface module (LIM) is considered inoperable.

Usage Valid values are as follows:

- In `loopback-config`, specify a number from 0 through 10. The default is 0 (zero), which means that no trap is sent.
- In `auto-lim-sparing-config`, specify a number. The default value is 100.

Example `set error-threshold = 5`
`set error-threshold = 90`

Dependencies In the `auto-lim-sparing-config` subprofile, an `error-averaging-period` value must be specified appropriately to make `error-threshold` usable.

Location `ATM-OAM:loopback-config`
`LIM-SPARING-CONFIG:auto-lim-sparing-config:lim-sparing-config[`*n*`]`

ether-if-type

Description Read-only. Indicates the type of physical Ethernet interface in use.

Usage The `ether-if-type` value is read-only. Valid values are as follows:

- `utp`—Indicates unshielded twisted pair (UTP), as specified in IEEE 802 (10BaseT) Ethernet.
- `aui`—Indicates an auxiliary unit interface (AUI) transceiver (thick Ethernet), as specified in IEEE 802.3 (10Base5) Ethernet.
- `coax`—Coaxial cable.

Example `ether-if-type = utp`

Location `ETHERNET`

event

Description Specifies an alarm event that triggers the actions indicated by the `action` subprofile.

Usage Valid values are as follows:

- `power-failure`—Specifies that the event is a redundant power supply failure.
- `fan-failure`—Specifies that the event is a redundant fan failure.
- `line-state-change` (the default)—Specifies that the event is a state change in a line.
- `slot-state-change`—Specifies that the event is a state change in a slot.
- `primary-switch-over`—Specifies that the event is a switchover of the primary control module functions to the secondary control module.
- `secondary-controller-state-change`—Specifies that the event is a state change in the secondary control module.
- `input-relay-closed`—Specifies that the event is the closure of an input relay-monitoring circuit.
- `input-relay-open`—Specifies that the event is the opening of an input relay-monitoring circuit.
- `low-temperature-trigger`—Specifies that the event is the crossing of a low-temperature threshold in the `thermal` profile.
- `high-temperature-trigger`—Specifies that that the event is the crossing of a high-temperature threshold in the `thermal` profile.

Example `set event = fan-failure`

Location `ALARM`

event-overwrite-enabled

Description Specifies whether the system generates a trap when a new event has overwritten an unread event. Once sent, additional overwrites do not cause another trap to be sent until at least one table's worth of new events have occurred.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when a new event has overwritten an unread event. This is the default.
- `no`—Specifies that the system does not generate a trap when a new event has overwritten an unread event.

Example `set event-overwrite-enabled = no`

Location `TRAP`

exact-match-call-routing

Description Enables or disables the system's use of an exact match for `call-route` profile parameters when it selects devices.

Usage Valid values are as follows:

- yes—Specifies that the system searches for an exact match of `call-route` profile parameters when selecting devices.
- no (the default)—Specifies that the system does not search for an exact match of `call-route` profile parameters when selecting devices.

Example `set exact-match-call-routing = no`

Location `SYSTEM`

exclude-listed-commands

Description Enable/disable permission for the users in the group to use the commands designated by the `command` parameter.

Usage Valid values are as follows:

- `yes`—Specifies that the users do not have permission to use the designated commands.
- `no` (the default)—Specifies that the users have permission to use the designated commands.

Example `set exclude-listed-commands = yes`

Location `USER-GROUP`

expect-callback

Description *Not supported.* Specifies whether callback security is expected.

Location `CONNECTION:telco-options`

expected-far-end-frame-length

Description Specifies the value of the far-end frame length expected during inverse multiplexing over ATM (IMA) group startup. If the actual frame length is not equal to `expected-far-end-frame-length`, IMA group startup is terminated.

Usage Valid values are as follows:

- `32`—IMA frame is 32 cells long.
- `64`—IMA frame is 64 cells long.
- `128`—IMA frame is 128 cells long. This is the default.
- `256`—IMA frame is 256 cells long.

Example `set expected-far-end-frame-length = 256`

Dependencies The parameter `far-end-check-frame-length` must be set to `yes` to enable the frame length check.

Location `IMAGROUP`

expected-far-end-ima-id

Description Specifies a number to check against the inverse multiplexing over ATM (IMA) ID at the far end.

The far-end IMA ID is compared against this value during group startup. If the IDs do not match, the unit moves to the `ConfigAborted` state.

Usage Specify a number from 0 (zero) to 255.

Example `set expected-far-end-ima-id = 33`

Dependencies For this parameter to apply, `check-far-end-ima-id` must be set to `yes`.

Location `IMAGROUP`

external-change

Description Read-only. Tracks the source of the most recent change to a profile.

Usage Read-only parameter with one of the following values:

- yes—Most recent read, create, or modify action on this profile was *not* performed using the command-line-interface.
- `no`—Most recent read, create, or modify action on this profile was performed using the command-line-interface.

Example `external-change = yes`

Location `ATM-QOS`
`PNNI-METRICS`
`PNNI-ROUTE-TNS`
`PNNI-SUMMARY-ADDR`
`ATM-SPVC-ADDR-CONFIG`
`PNNI-IF-CONFIG`
`PNNI-NODE-CONFIG`
`PNNI-ROUTE-ADDR`

external-fan-unit-failed

Description An alarm was received from the remote shelf fan to indicate a failure of the external fan unit.

Usage This parameter is read-only. Valid values are as follows:

- `yes`—An alarm was received.
- `no` (the default)—No alarms were received.

Location REMOTE-SHELF-STAT

extra-traffic-flag

Description Read-only. Indicates whether extra traffic is being carried on the protection channel in automatic protection switching (APS).

Usage The extra-traffic-flag value is read-only. Valid values are as follows:

- true—Indicates that the protection channel is carrying extra traffic.
- fals—Indicates that the protection channel is not carrying extra traffic..

Example extra-traffic-flag = false

Location APS-STAT

ezd-error-count

Description Read-only. Number of times the system has detected excessive binary zeros that occurred since it was last reset.

Usage The ezd-error-count value is read-only.

Example ezd-error-count = 47419

Location DS3-ATM-STAT
E3-ATM-STAT
OC3-ATM-STAT

F

facility

Description Specifies the syslog daemon facility code for messages logged from the Stinger unit. For detailed information, see the syslog.conf manual page entry on the UNIX Syslog server.

The facility value in the log profile affects all data streams. The facility value in each auxiliary-syslog subprofile affects the individual data stream directed to the device specified by the host value, and overrides the value in the log profile.

Usage Valid values are as follows:

- local0 (the default)
- local1
- local2
- local3
- local4
- local5
- local6
- local7

Example `set facility = local4`

Location `LOG`
`LOG:auxiliary-syslog:auxiliary-syslog[`*n*`]`

failure-notification-interval

Description Specifies the minimum interval between the sending of `atmSoftPvcCallFailuresTrap` notifications.

Usage Specify a value in the range from 0 to 3600 seconds. The default value is 30.

Example `set failure-notification-interval = 120`

Location `ATM-SPVC-CONFIG`

failure-status

Description Read-only. Indicates the current failure status of the inverse multiplexing ATM (IMA) group, providing the reason why group traffic is in the DOWN state.

Usage The `failure-status` value is read-only. Valid values are as follows:

- `no-failure`—No failure of the IMA group. The unit is operational.
- `start-up-ne`—IMA group startup failure occurred at the near end.
- `start-up-fe`—IMA group startup failure occurred at the far end.
- `failed-asymmetric-ne`—IMA group startup failed due to asymmetry at the near end.
- `failed-asymmetric-fe`—IMA group startup failed due to asymmetry at the far end.
- `insufficient-links-ne`—IMA group startup failed due to insufficient links at the near end.
- `insufficient-links-fe`—IMA group startup failed due to insufficient links at the far end.
- `blocked-ne`—IMA group startup was blocked at the near end.
- `blocked-fe`—IMA group startup was blocked at the far end.
- `other-failure`—IMA group startup has some other failure.
- `invalid-ima-version-ne`—Near end reported an invalid IMA version.
- `invalid-ima-version-fe`—Far end reported an invalid IMA version.

Example `failure-status = no-failure`

Location `IMA-GROUP-STAT`

failure-trap-enable

Description Enables or disables the generation of traps (notifications) in response to call failures.

Usage Specify one of the following values:

- yes—The system generates traps in response to call failures. This is the default value.
- no—The system does not generate traps in response to call failures.

Example `set failure-trap-enable = no`

Location ATM-SPVC-CONFIG

far-end-check-frame-length

Description Enables or disables comparison of the actual far-end frame length with the expected-far-end-frame-length parameter during inverse multiplexing over ATM (IMA) group startup.

Usage Specify one of the following values:

- yes—Enables far-end frame length checking during IMA group startup.
- no—Disables far-end frame length checking during IMA group startup.

Example `set far-end-check-frame-length = yes`

Location IMAGROUP

far-end-crc

Description Read-only. Indicates the number of cyclic redundancy check (CRC) errors detected by the ADSL transceiver unit (ATU) of the customer premises equipment (CPE).

Usage The far-end-crc value is read-only.

Example far-end-crc = 0

Location AL-DMT-STAT:physical-statistic

far-end-db-attenuation

Description Read-only. Indicates the attenuation of the signal in decibels received from the customer premises equipment (CPE).

Usage The far-end-db-attenuation setting is read-only.

Example far-end-db-attenuation = 0

Location SDSL-STAT:physical-statistic

far-end-fec

Description Read-only. Indicates the number of forward error correction (FEC) errors detected by the ADSL transceiver unit (ATU) on the customer premises equipment (CPE).

Usage The `far-end-fec` value is read-only.

Example `far-end-fec = 0`

Location `AL-DMT-STAT:physical-statistic`

far-end-hec

Description Read-only. Indicates the number of header error control (HEC) errors detected by the ADSL transceiver unit (ATU) on the customer premises equipment (CPE).

Usage The `far-end-hec` value is read-only.

Example `far-end-hec = 0`

Location `AL-DMT-STAT:physical-statistic`

far-end-ima-group-state

Description Read-only. Indicates the current operational state of the far-end inverse multiplexing over ATM (IMA) group.

Usage The `far-end-ima-group-state` value is read-only. Valid values are as follows:

- `not-configured`—IMA group is not configured.
- `start-up`—IMA group is in the startup state.
- `start-up-ack`—IMA group is in a transitional state and has transitioned out of IMA startup state.
- `aborted-unsupported-framelength`—IMA group connection failed because the Frame length (M) received from the remote end was not acceptable to the local end.
- `aborted-incompatible-symmetry`—IMA group connection failed because the remote end and local end have incompatible group symmetry modes.
- `aborted-other`—IMA group connection failed for some other reasons.
- `insufficient-links`—IMA group connection is currently in the insufficient links state.
- `blocked`—IMA group connection is in the blocked state.
- `operational`—IMA group connection is in the operational state.
- `aborted-unsupported-version`—Stinger unit moved to the `configAborted` state because of an IMA version mismatch between the local and remote ends.

Example `far-end-ima-group-state = operational`

Location `IMA-GROUP-STAT:ima-rt`

far-end-num-failures

Description Read-only. Indicates the number of times a far-end group failure (for example, `configAborted` or insufficient links) has been reported in the current 15-minutes interval.

Usage The `far-end-num-failures` value is read-only. Valid values range from 0 ((zero) to 2147483647.

Example `far-end-num-failures = 6`

Location `IMA-GROUP-STAT:ima-group-statistic`

far-end-rx-failure-status

Description Read-only. Indicates the far end receive (RX) failure status of the IMA link.

Usage Valid values for this read-only parameter are as follows:

- `no-failure`—IMA link does not have any failure.
- `ima-link-failure`—IMA link experienced a failure at the IMA layer.
- `lif-failure`—IMA link experienced a loss of IMA frame (LIF) failure.
- `lods-failure`—IMA link experienced a loss of delay synchronization (LODS) failure.
- `misconnected`—IMA link is misconnected to the far-end.
- `blocked`—IMA link is in blocked state.
- `fault`—IMA link is in fault state.
- `far-end-tx-link-unusable`—Far end transmit of the IMA link is in an unusable state.
- `far-end-rx-link-unusable`—Far end receive of the IMA link is in an unusable state.

Example `far-end-rx-failure-status = no-failure`

Location `DS1-ATM-STAT:ima-link-status`

far-end-rx-link-state

Description Read-only. Indicates the far-end receive (RX) state of the DS1-ATM link.

Usage Valid values for this read-only parameter are as follows:

- `unusable-no-given-reason`—IMA link is not usable but the reason is not known.
- `unusable-fault`—IMA link is not usable because of a fault.
- `unusable-misconnected`—IMA link is not usable because it is misconnected with the far end.
- `unusable-inhibited`—IMA link is not usable because it is in an inhibited state.
- `unusable-failed`—IMA link is not usable because it is in failed state.

- `usable`— IMA link is usable.
- `active`—IMA link is active, part of an IMA group, and carrying traffic from the ATM layer.

Example `far-end-rx-link-state = not-in-group`

Location `DS1-ATM-STAT:ima-link-status`

far-end-rx-num-failures-counter

Description Read-only. Indicates the number of times a far-end (FE) receive failure alarm condition has been entered on the Rx-Unusable-FE link. This is an optional attribute.

Usage Valid for this read-only parameter range from 0 (zero) to 2147483647.

Example `far-end-rx-num-failures-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

far-end-rx-unusable-secs-counter

Description Read-only. Indicates the count of seconds with receive (RX) unusable indications at the far-end link.

Usage The valid range for this read-only parameter is from 0 (zero) to 2147483647.

Example `far-end-rx-unusable-secs-counter = 134`

Location `DS1-ATM-STAT:ima-link-statistic`

far-end-sev-errored-secs-counter

Description Read-only. Indicates the count of one second intervals containing one or more remote defect indicator (RDI) defects in inverse multiplexing over ATM (IMA), except during the unavailable seconds for IMA far end (UAS-IMA-FE) condition.

Usage The valid range for this read-only parameter is from 0 (zero) to 2147483647.

Example `far-end-sev-errored-secs-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

far-end-txclock-mode

Description Read-only. Indicates the transmit clocking mode used by the far-end inverse multiplexing over ATM (IMA) group.

Usage Valid values for this read-only parameter are as follows

- `ctc`—Common transmit clock. The transmit clocks of the links within the IMA group are derived from the same clock source.

- `itc`—Independent transmit clock. The transmit clocks of the links within the IMA group are derived from their respective receive clocks.

Example `far-end-txclock-mode = ctc`

Location `IMA-GROUP-STAT`

far-end-tx-link-state

Description Read-only. Indicates the transmit state of the link.

Usage Valid values for this read-only parameter are as follows

- `not-in-group`—IMA link is not part of an IMA group.
- `unusable-no-given-reason`—IMA link is not usable, but the reason is not known.
- `unusable-fault`—IMA link is not usable because of a fault.
- `unusable-misconnected`—IMA link is not usable because it is misconnected with the far end.
- `unusable-inhibited`—IMA link is not usable because it is in an inhibited state.
- `unusable-failed`—IMA link is not usable because it is in failed state.
- `usable`—IMA link is usable.
- `active`—IMA link is active, part of an IMA group, and carrying traffic from the ATM layer.

Example `far-end-tx-link-state = not-in-group`

Location `DS1-ATM-STAT:ima-link-status`

far-end-tx-num-failures-counter

Description Read-only. Indicates the number of times a far-end (FE) transmit (TX) failure alarm condition has been entered on the Tx-Unusable-FE link. This is an optional attribute.

Usage The valid range for this read-only parameter is from 0 (zero) to 2147483647.

Example `far-end-tx-num-failures-counter = 12`

Location `DS1-ATM-STAT:ima-link-statistic`

far-end-tx-unusable-secs-counter

Description Read-only. Indicates the count of seconds with Tx Unusable indications from the far-end transmit (TX) link.

Usage The valid range for this read-only parameter is from 0 (zero) to 2147483647.

Example `far-end-tx-unusable-secs-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

far-end-unavail-secs-counter

Description Read-only. Indicates the count of unavailable seconds at the far end.

Unavailability begins at the onset of 10 contiguous severely errored seconds for inverse multiplexing over ATM (SES-IMA-FE) and ends at the onset of 10 contiguous seconds with no SES-IMA-FE.

Usage Valid range for this read-only parameter is from 0 (zero) to 2147483647.

Example `far-end-unavail-secs-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

fault-clearing-time

Description *Not currently used.* Specifies the amount of time, in seconds, after which a fault on an inverse multiplexing over ATM (IMA) link is cleared.

Usage Valid range is 0 (zero) to 2147483647.

Example `set fault-clearing-time = 10`

Dependencies For `fault-clearing-time` to apply, `fault-clearing-type` must be set to `auto`.

Location `DS1-ATM:line-config:ima-option-config:rx-link-config`
`DS1-ATM:line-config:ima-option-config:tx-link-config`

fault-clearing-type

Description *Not currently used.* Specifies whether fault clearing on an inverse multiplexing over ATM (IMA) link is automatic or manual.

Usage Valid values are as follows:

- `manual`—Link fault clearing is manual.Any fault is permanent until cleared by the user.
- `auto`—Link fault clearing is automatic. A fault is automatically cleared after the user-defined time. This is the default.

Example `set fault-clearing-type = auto`

Location `DS1-ATM:line-config:ima-option-config:rx-link-config`
`DS1-ATM:line-config:ima-option-config:tx-link-config`

f-bit-error-count

Description Read-only. Indicates the number of framing bit errors received since the last time the unit was reset.

Usage This read-only display is used for monitoring line communications as follows:

- For the `ds3-atm-stat` profile—If three or more errors occur in up to 16 consecutive framing bits in a DS3 M-frame, a DS3 out-of-frame defect is detected. If an out-of-frame defect is consistent for up to 10 seconds, a DS3 loss-of-frame defect is detected.
- For the `e3-atm-stat` profile—Number of F-bit errors. If three or more errors occur in up to 16 consecutive F-bits in an E3 M-frame, an E3 out-of-frame defect is detected. If an out-of-frame defect is consistent for up to 10 seconds, an E3 loss-of-frame is detected.

Example `f-bit-error-count = 0`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`

fbm-dbm-mode

Description For Annex C line interface modules (LIMs) only, specifies the bit-map mode for a line.

Usage Valid values are as follows:

- `fbm` (the default)—Specifies fixed bit-map mode.
- `dbm`—Specifies dual bit-map mode.

Example `set fbm-dbm-mode = dbm`

Location `AL-DMT:line-config`

fclloc-gauge

Description Specifies the gauge of the cable in the loop of a copper loop test (CLT).

Usage Valid values are as follows:

- If you have selected English units, enter one of the following American wire gauge (AWG) values:
  - `22`
  - `24`
  - `26`
- If you have selected metric units, enter one of the following values to specify a gauge in tenths of a millimeter:
  - `4`
  - `5`
  - `6`

Example When metric units have been selected, the following example specifies a cable loop of 0.4mm:

```
set fclloc-gauge = 4
```

Dependencies For `fclloc-gauge` to apply, you must specify the appropriate unit of measurement in `fclloc-unit`.

Location `CLT-COMMAND`

fclloc-unit

Description Specifies the units of measurement used for a first coil location test in a copper loop test (CLT).

Usage Valid values are as follows:

- `english`—Specifies that English units are used for the measurement.
- `metric` (the default)—Specifies that metric units are used for the measurement.

Example `set fclloc-unit = metric`

Location `CLT-COMMAND`

fdl

Description Specifies the Facilities Data Link (FDL) protocol that the telephone company uses to monitor the quality and performance of a T1 line. The protocol provides information at regular intervals to your carrier's maintenance requirements.

Usage Specify one of the following values:

- `none`—Disables FDL signaling. This is the default.
- `AT&T`—Specifies AT&T FDL signaling
- `ANSI`—Specifies ANSI FDL signaling
- `sprint`—Specifies Sprint FDL signaling

Note Currently the `Sprint` setting conforms to the same functionality as the `at&t` setting.

Example `set fdl = at&t`

Dependencies FDL does not apply to D4 framed lines.However, even if you do not choose the FDL protocol, the Stinger unit accumulates D4 and ESF performance statistics in the FDL Statistics windows.

Location `DS1-ATM:line-config`

feb-error-count

Description Read-only. Indicates the number of far-end block errors (C-bit coding violations) received since the last time the unit was reset.

Usage The `feb-error-count` value is read-only.

Example `feb-error-count = 0`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`

fepl-failure

Description Read-only. Indicates whether a far-end protection line (FEPL) failure has occurred.

Usage Valid values are for this read-only parameter are as follows:

- `true`—Indicates a FEPL failure.
- `false`—Indicates no FEPL failure has occurred.

Example `fepl failure = false`

Location `APS-STAT`

fepl-mismatch-clear-timer-duration

Description Specifies the duration of the clear timer for a far-end protection line (FEPL) mismatch, in tenths of milliseconds. This setting is part of the automatic protection switching (APS) system.

Usage Specify a number from 0 through 4,294,967,295. The default is 1000.

Example **`set fepl-mismatch-clear-timer-duration = 2000`**

Location `APS-CONFIG`

fepl-mismatch-failure-timer-duration

Description Specifies the time duration allowed for a far-end protection line (FEPL) failure mismatch, in tens of milliseconds.

Usage Specify a number from 0 through 4,294,967,295. The default is 250.

Example **`set fepl-mismatch-failure-timer-duration = 300`**

Location `APS-CONFIG`

fifo-overflow-counter

Description Read-only. Indicates the number of cells dropped due to first-in-first-out (FIFO) overflow.

Usage The `fifo-overflow-counter` value is read-only.

Example `fifo-overflow-counter = 0`

Location `OC3-ATM-STAT`

filter-name

Description Specifies the name of a filter.

- In a `filter` profile, the name you assign becomes the `filter` profile's index, which is used to apply the filter to interfaces.
- In an `ethernet` profile, the name specifies a data filter to apply to the Ethernet interface.

Usage Specify a filter name of up to 36 characters. The default is null.

Example `set filter-name = ip-spoof`

Location `ETHERNET`
`FILTER`

filter-persistence

Description Enables or disables filter persistence across connection state changes.

A state change occurs when a connection temporarily stops operating because of inactivity on the line.

Usage Valid values are as follows:

- `yes`—Filters persist across state changes.
- `no` (the default)—Filters do not persist across state changes.

Example `set filter-persistence = yes`

Location `ANSWER-DEFAULTS:session-info`
`CONNECTION:session-options`

filter-required

Description Specifies whether access to the filter is required to establish the session.

In the `answer-defaults` profile, this parameter is used for RADIUS user profiles that apply a filter and do not specify a value for `Ascend-Filter-Required (50)`.

Usage Valid values are as follows:

- `yes`—Disconnects the call with cause code 425 if the filter is not found locally or in RADIUS.
- `no` (the default)—Establishes the session even if the specified filter is not found, and logs a notice-level message.

Example `set filter-required = yes`

Dependencies This setting does not apply if the profile does not specify a filter by name.

Location `ANSWER-DEFAULTS:session-info`
`CONNECTION:session-options`

filter-type

Description Type of multicast group address filtering.

Usage Allowable values are:

- `exclusive`—Access to all multicast group addresses except those listed in the `filter-list` is allowed.
- `inclusive`—Access only to those multicast group addresses listed in the `filter-list` is allowed.
- `none` (the default)—Access to all multicast groups is allowed.

Example `set filter-type = inclusive`

Location `MCAST-SERVICE`

finger

Description Enables or disables response to remote `finger` queries.

The `finger` facility is described in RFC 1288. The `finger` forwarding service, which uses the hostname format *@host1@host2*, is not supported. If the remote client uses the forwarding request format, the system sends a message that the service is denied.

Usage Valid values are as follows:

- `yes`—Accepts `finger` queries and returns the requested active session details to a remote client. The client can ask for short or wide format of session information, and can request the details of all sessions, or of a single session.
- `no` (the default)—Rejects queries from `finger` clients and sends a message that the `finger` online user list is denied.

Example `set finger = yes`

Location `IP-GLOBAL`

firmware-startup-stage

Description Read-only. Indicates the current firmware state.

Usage The `firmware-startup-stage` value is read-only.

Example `firmware-startup-stage = idle`

Location `SDSL-STAT:physical-statistic`

firmware-ver

Description Read-only. Indicates the version number of the line interface module (LIM) firmware.

Usage The `firmware-ver` value is read-only.

Example `firmware-ver = 1.4.1`

Location AL-DMT-STAT:physical-status
HDSL2-STAT:physical-status
SHDSL-STAT:physical-status

first-coil-location

Description Specifies the distance to the first load coil detected in a copper loop test (CLT).

Usage Distance is reported in centimeters if fclloc-unit is set to metric. Distance is reported in hundredths of feet if fclloc-unit is set to English. A value of 0 indicates no load coil was detected.

Example first-coil-location = 74

Location CLT-RESULT

first-level-user

Description Name of a first-level user profile. The default setting is null.

Usage Specify the name of a valid user profile.

Example **set first-level-user = john**

Location USER

first-retry-timer

Description Specifies the initial interval, in milliseconds, that the system waits before retransmitting control packets in the attempt to establish a Layer 2 Tunneling Protocol (L2TP) tunnel with an L2TP network server (LNS) system.

Usage Enter a number from 100 to 5000. The default is 1000.

Example **set first-retry-timer = 1000**

Dependencies This timer works with the retry-count parameter in establishing and maintaining tunnel sessions.

Location L2-TUNNEL-GLOBAL:l2tp-config

flow-control

Description Specifies the flow control method used on the serial port.

Usage Valid values are as follows:

- none (the default)—Specifies no flow control.
- xon-xoff—Specifies software flow control.
- hardware-handshake—Specifies hardware flow control.

Example **set flow-control = xon-xoff**

Location SERIAL

force-56kbps

Description *Not supported.* Specifies whether to use only the 56Kbps portion of a channel, even when all 64Kbps appear to be available.

Location ANSWER-DEFAULTS
CALL-INFO
CONNECTION:telco-options

force-fragmentation

Description Enables or disables the fragmentation of packets with the DF (Don't Fragment) bit set, sent by client software.

If outdated client software sends large packets with the DF bit set, you can set this parameter to force the system to fragment the packets anyway.

Usage Valid values are as follows:

- yes—Forces prefragmentation of large IP frames before they are sent to the remote agent, even if the frame has the DF bit set. This behavior is not standard and prevents maximum transmission unit (MTU) discovery mechanisms.
- no—Sends an Internet Control Message Protocol (ICMP) message if a frame needs fragmentation and the DF bit is set. This is the default.

Example `set force-fragmentation = no`

Location ATMP

forward

Description Specifies the forwarding action of a filter:

- For a data filter, the forwarding action determines whether the system forwards or discards packets that match the filter specification.
- For a call filter, the forwarding action determines whether matching packets reset the session timer.

Usage Valid values are as follows. When no filters are in use, the system forwards all packets by default. When a filter is in use, the default is to discard matching packets.

- yes—Forwards packets that match the filter rules.
- no—Discards packets that match the filter rules. This is the default.

Example `set forward = yes`

Dependencies This setting has no effect on route filters or type-of-service (TOS) filters.

Location FILTER:input-filters[*n*]
FILTER:output-filters[*n*]

fr-08-mode

Description Specifies how frame relay packet headers are processed when they flow between the frame relay interface and the Asynchronous Transfer Mode (ATM) interface.

Note This parameter is not currently used in the `atm-connect-options` subprofile.

Usage Valid values are as follows:

- `translation`— RFC 1490 headers are converted to RFC 1483 header format. This is the default.
- `transparent`—RFC 1490 headers are not converted to RFC 1483 header format.

Example `set fr-08-mode = transparent`

Location `CONNECTION:atm-connect-options`
`CONNECTION:atm-options`

framed-only

Description Specifies whether an incoming call must use a framed protocol or not.

Usage Valid values are as follows:

- `yes`—Specifies that an incoming call must use a framed protocol.
- `no`—Specifies that an incoming call need not use a framed protocol. This is the default.

Example `set framed-only = yes`

Location `CONNECTION`

frame-length

Description Specifies the frame length for an inverse multiplexing ATM (IMA) group.

Usage Valid values are as follows:

- `32`—IMA frame is 32 cells long.
- `64`—IMA frame is 64 cells long.
- `128`—IMA frame is 128 cells long. This is the default.
- `256`—IMA frame is 256 cells long.

Example `set frame-length = 64`

Location `IMAGROUP`

framer-mode

Description Specifies the Asynchronous Transfer Mode (ATM) framer mode for DS3 and E3 interfaces. Specifies the SONET mode for OC3 interfaces.

Usage Valid values are as follows:

- For DS3-ATM interfaces:
  - `c-bit-adm`—Free-running and fixed-stuffing C-bit ATM direct-mapping (ADM) mode.
  - `c-bit-plcp`—Free-running and fixed-stuffing C-bit Physical Layer Convergence Protocol (PLCP) mode. This is the default.
  - `c-bit-adm-loop-timed`—Loop-timed C-bit ADM mode.
  - `c-bit-plcp-loop-timed`—Loop-timed C-bit PLCP mode.
  - `c-bit-adm-frame-locked`—Frame-locked C-bit ADM mode.
  - `c-bit-plcp-frame-locked`—Frame-locked C-bit PLCP mode.
- For E3-ATM interfaces:
  - `g832-adm`—G.832 framing, ADM, fixed-stuffing mode.
  - `g832-adm-frame-locked`—Frame-locked E3-ATM G.832 ADM mode.
  - `g832-adm-loop-timed`—Loop-timed E3-ATM G.832 ADM mode.
- For OC3-ATM interfaces:
  - `sonet`—Synchronous Optical Network mode.
  - `sdh`—Synchronous digital hierarchy mode.

Example `set framer-mode = c-bit-plcp-frame-locked`

Location `DS3-ATM:line-config`
`E3-ATM:line-config`
`OC3-ATM:line-config`

framer-rate

Description Specifies the framing to use on the line.

Usage Currently, the only supported value is `sts-3c`, which is used for a 155.52Mbps interface in the U.S. as well as the equivalent European 155Mbps interface (STM-1).

Example `set framer-rate = sts-3c`

Location `OC3-ATM:line-config`

frame-relay-enabled

Description Read-only. Indicates whether frame relay is enabled on the Stinger unit.

Usage The `frame-relay-enabled` value is read-only and can have one of the following settings:

- yes—Indicates that frame relay is enabled.
- no—Indicates that frame relay is not enabled.

Example frame-relay-enabled = no

Location BASE

frame-relay-profile

Description Specifies the name of the frame-relay profile to use.

Usage Specify the name of a frame-relay profile, exactly as specified by the fr-name value, including case changes.

Example **set frame-relay-profile = att-dce**

Dependencies For frame-relay-profile to apply, you must set fr-direct-enabled to no.

Location CONNECTION:fr-options

framer-sync-status

Description Read-only. Indicates the state of the HDSL2 framer. Provides troubleshooting information and can assist in determining the reason for a loss-of-signal (LOS) condition.

Usage Valid values for this read-only parameter are as follows:

- in-sync—Framer is in synchronization. The HDSL2 framers are successfully passing HDSL2 frames.
- resync-state 1 through resync-state 5—HDSL2 framer is trying to regain synchronization.
- out-of-sync—HDSL2 framer is out of synchronization and is not trying to regain synchronization.
- out-of-sync-pre-sync—HDSL2 framer is out of synchronization and is not trying to gain synchronization.

Example framer-sync-status = in-sync

Location HDSL2-STAT:physical-statistic
SHDSL-STAT:physical-statistic

frame-type

Description *Not currently used.* Specifies the super-framing mode used for the physical link(s).

Usage Valid values are as follows:

- d4—Fourth-generation channel bank
- esf—Extended Super Frame format, a T1 format that uses the framing bit for nonintrusive signaling and control. This is the default.

- 703

Example `set frame-type = esf`

Location `DS1-ATM:line-config`

fr-answer

Description Specifies whether the Stinger unit answers incoming connections that use frame relay encapsulation.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit answers incoming connections that use frame relay encapsulation. This is the default.
- `no`—Specifies that this function is disabled.

Example `fr-answer = yes`

Location `ANSWER-DEFAULTS`

fr-direct-dlci

Description *Not currently used.* Specifies the data link connection identifier (DLCI) of the frame relay direct connection.

Usage Specify a number from 16 through 91.

Example `set fr-dlci = 16`

Location `CONNECTION:fr-options`

fr-direct-enabled

Description *Not currently used.* Specifies that the Stinger unit uses the connection for Frame Relay Direct.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit uses the connection for frame relay direct.
- `no`—Specifies that the Stinger unit does not use the connection for frame relay direct. This is the default

Example `set fr-direct-enabled = yes`

Dependencies If `encapsulation-protocol` is set to `frame-relay` or `frame-relay-circuit`, `fr-direct-enabled` does not apply.

Location `CONNECTION:fr-options`

fr-direct-profile

Description *Not currently used.* Specifies the name of the frame relay profile to be used for frame relay direct routing

Usage Specify a name of up to 16 characters.

Example `set fr-direct-profile = cingula`

Location `CONNECTION:fr-options`

frdl

Description Specifies the password for the frame relay pseudo user.

Usage Specify a password of up to 21 characters.

Example `set frdl = yourpass`

Location `EXTERNAL-AUTH:password-profile`

fr-dlci

Description Specifies a frame relay data link connection identifier (DLCI) number to use for frame relay direct connections.

Usage Specify the DLCI obtained from the frame relay administrator for frame relay direct links. The default is null. More than one direct PPP connection can share an `fr-dlci` number.

Example `set fr-dlci = 72`

Dependencies If `fr-direct-enabled` is set to `no`, `fr-dlci` does not apply. The `fr-dlci` parameter does not apply to gateway or circuit connections.

Location `CONNECTION:fr-options`

frequency-justification-count

Description Read-only. Indicates the count of frequency justification instances that have taken place.

These operations monitor and reinforce synchronicity in the sending of packets.

Usage The `frequency-justification-count` value is read-only.

Example `frequency-justification-count = 0`

Location `OC3-ATM-STAT`

fr-linkdown-enabled

Description Specifies whether a trap (notification) is sent whenever a data link connection identifier (DLCI) is brought down.

Usage Valid values are as follows:

- `yes`—Specifies that a trap is sent whenever a DLCI is brought down. This is the default.
- `yes`—Specifies that a trap is not sent whenever a DLCI is brought down.

Example `set fr-linkdown-enabled = no`

Dependencies If you set `fr-linkdown-enabled` to `yes`, you must also set `alarm-enabled` to `yes` for a trap to be sent whenever a DLCI is brought down.

Location `TRAP`

fr-link-type

Description *Not used.* Specifies the type of link for the circuit end point.

Usage Valid values are as follows:

- `transparent-link`—Specifies a 1:1 circuit. It requires two end points that specify the same circuit name and the transparent-link type. If only one end point is specified, data received on the specified DLCI is dropped. If more than two transparent-link end points are specified with the same circuit name, only two of the profiles will be used to form a circuit. This is the default.
- `host-link`—Specifies virtual channel trunking with multiple end points on the host side.
- `trunk-link`—Specifies virtual channel trunking with a single end point on the trunk side.

Example `set fr-link-type = transparent-link`

Location `CONNECTION:fr-options`
`FRDLCI-STAT:dlci-ident`
`FRPVC-STAT:dlci-members[`*n*`]`

fr-linkup-enabled

Description Specifies whether a trap (notification) is sent whenever a data link connection identifier (DLCI) is brought up.

Usage Valid values are as follows:

- `yes`—Specifies that a trap is sent whenever a DLCI is brought up. This is the default.
- `no`—Specifies that a trap is not sent whenever a DLCI is brought up.

Example `set fr-linkup-enabled = no`

Dependencies If you set `fr-linkup-enabled` to `yes`, you must also set `alarm-enabled` to `yes` for a trap to be sent whenever a DLCI is brought up.

Location `TRAP`

fr-name

Description Specifies the name of a `frame-relay` profile.

Usage Specify a unique of no more than 15 characters. The default is null.

Example `set fr-name = att-dce`

Location `FRAME-RELAY`

front-end-type

Description Specifies the front-end type of the transceiver: a long-haul or short-haul line interface unit.

Usage Valid values are as follows:

- `short-haul`—Sets the port for short-haul mode, which sets the receive sensitivity to -12dB in E1 mode and -30dB in T1 mode. A cross-connect receives a cell stream on one interface and transmits it on another. This is the default.
- `long-haul`—Sets the port to the long-haul mode, which sets the receive sensitivity on the interface to -43dB in E1 mode and -36dB in T1 mode.

Example `set front-end-type = short-haul`

Dependencies Consider the following:

- For the `short-haul` setting to apply, you must also set the `line-length` parameter to the length of the cable that connects to the digital cross-connect.
- For the `long-haul` setting to apply, you must also specify the correct value for the `line-build-out` parameter.
- The `long-haul` setting requires 120-ohm termination.

Location `DS1-ATM:line-config`

fr-profile

Description Specifies or indicates, according to the profile, the name of the `frame-relay` profile to use for a frame relay direct connection.

Usage Valid values are as follows:

- In a `fr-options` subprofile, specify the name of a configured `frame-relay` profile, exactly as specified by the `fr-name` setting, including case changes.
- In a `dlci-ident` subprofile, a read-only value specifying the `frame-relay` profile over which the DLCI is established.
- In a `dlci-members[n]` subprofile, a read-only value specifying the `frame-relay` profile over which the DLCI is established.

Example `set fr-profile = att-dce`

Dependencies For `fr-profile` to apply, you must set `fr-direct-enabled` to `yes`. The `fr-profile` parameter does not apply to gateway or circuit connections.

Location `CONNECTION:fr-options`
`FRDLCCI-STAT:dlci-ident`
`FRPVC-STAT:dlci-members[`*n*`]`

ft1-caller

Description *Not supported.* Specifies whether the system allows fractional T1 dial-out.

Location `CALL-INFO`
`CONNECTION:telco-options`

function

Description Read-only. Indicates the current function of the controller in this context.

Usage Read-only parameter with the following possible values:

- `no-function`
- `primary`
- `secondary`

Example `function = secondary`

Location `REDUNDANCY-STATS:context-stats`

G

gain-default

Description Specifies the default gain value in decibels (dB) for automatic gain control (AGC).

Usage Valid values are as follows:

- 16—Specifies 16dB, the optimum for upstream transmission.
- 20—Specifies 20dB, the optimum value for downstream transmission.

Example `set gain-default = 20`

Location `AL-DMT:fast-path-config`

gamma-ima-value

Description Specifies the number of consecutive valid inverse multiplexing over ATM (IMA) Control Protocol (ICP) cells that must be detected before the system moves to IMA SYNC state from the PRESYNC state.

Usage Specify a number from 1 to 5.

Example `set gamma-ima-value = 1`

Location IMAHW-CONFIG

gateway-address

Description Specifies the IP address of a next-hop router used to reach the destination address specified by a static or private route. A next-hop router is directly connected to the same Ethernet segment as the Stinger unit, or is one hop away on a WAN link.

Usage Specify an IP address. The default is 0.0.0.0.

Example `set gateway-address = 2.2.2.2`

Location IP-ROUTE
PRIVATE-ROUTE-TABLE:route-description-list[*n*]

gdb-host

Description Specifies the name or IP address of the host running GNU debugger (GDB).

Usage Specify an alphanumeric value up to 31 characters long. The default is blank.

Example `set gdb-host = GNUs new`

Location DEBUG

generic-field

Description Specifies a field used as a generic bit mask stored in nonvolatile memory and preserved over resets and power downs.

Usage Specify a numeric value ranging from 0 to 4294967295.

Example `set generic-field = 123456`

Location DEBUG

glite-atm-48

Description Specifies whether code images for ADSL 48-port G.lite line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Causes the system to load images for ADSL 48-port G.lite LIMs that are installed in the Stinger unit, and to skip images for modules that are not installed. This is the default.
- `load`—Causes the system to load the image, even if no ADSL 48-Port G.lite LIMs are installed.
- `skip`—Causes the system to skip the image, even if an ADSL 48-Port G.lite LIM is installed.

Note A module is considered present in the system if a `slot-type` profile exists for that module type. The system creates a `slot-type` profile when it first detects the presence of a module, and does not delete the profile unless you use the `slot –r` command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use `slot –r` to remove `slot-type` profiles for modules that are no longer installed in the system.

Example `set glite-atm-48 = auto`

Location `LOAD-SELECT`

global

Description *Not used.* Specifies the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the global scope.

Usage Specify a number from 0 to 104. The default value is 0.

Location `PNNI-NODE-CONFIG:node-scope-mapping`

global-vrouter

Description Specifies the name of the global virtual router (the main router).

Usage Specify up to 23 characters. The default is `main`.

Example `set global-vrouter = test`

Location `IP-GLOBAL`

gmt-offset

Description Specifies the local time zone as an offset from the Coordinated Universal Time (UTC).

When Simple Network Time Protocol (SNTP) has been enabled, specifying the time zone allows the system to query the server to maintain its system time.

Usage Because UTC is in the same time zone as Greenwich Mean Time (GMT), specify the offset in hours, using a 24-hour clock. Because some time zones, such as Newfoundland, cannot use an even-hour boundary, the offset includes 4 digits and is specified in half-hour increments. Valid values are as follows:

`utc-1130`
`utc-1100`
`utc-1030`
`utc-1000`
`utc-0930`
`utc-0900`
`utc-0830`
`utc-0800`
`utc-0730`
`utc-0700`
`utc-0630`
`utc-0600`
`utc-0530`
`utc-0500`
`utc-0430`
`utc-0400`
`utc-0330`
`utc-0300`
`utc-0230`
`utc-0200`
`utc-0130`
`utc-0100`
`utc-0030`
`utc+0000` (the default)
`utc+0030`
`utc+0100`
`utc+0130`
`utc+0200`
`utc+0230`
`utc+0300`
`utc+0330`
`utc+0400`
`utc+0430`
`utc+0500`
`utc+0530`
`utc+0600`
`utc+0630`
`utc+0700`
`utc+0730`
`utc+0800`
`utc+0830`
`utc+0900`
`utc+0930`
`utc+1000`
`utc+1030`
`utc+1100`
`utc+1130`
`utc+1200`

Example Use the following examples to help you set `gmt-offset`:

- To set the offset for Newfoundland, which is 1.5 hours ahead of UTC:

  `set gmt-offset = utc+0130`

- To set the offset for San Francisco, which is 8 hours ahead of UTC:

  `set gmt-offset = utc+0800`

- To set the offset for Frankfurt, which is 1 hour behind UTC:

  `set gmt-offset = utc-0100`

Location `IP-GLOBAL:sntp-info`

group-address

Description A multicast group address (a class D IP address). You can specify a full group address or a group range. If you specify a prefix (such as /8 in the value 226.0.0.0/8), the system automatically updates the `group-mask` parameter with the appropriate decimal value (such as 255.0.0.0).

Usage Specify an IP address in dotted decimal notation.

Example **`set group-address = 231.1.1.1`**

Dependencies The combined group address and group mask must be unique in the system. You cannot write duplicate mappings for the same group or group range.

Location `PIM-GROUP-RP-MAPPING`

group-mask

Description A mask to be applied to the `group-address` value to obtain the group prefix mapped to the specified rendezvous point (RP). For example, a value of 255.0.0.0 indicates a one-octet group prefix. If no mask is specified, the default mask of 255.255.255.255 is applied.

Usage Specify an IP address in dotted decimal notation.

Example **`set group-mask = 255.0.0.0`**

Location `PIM-GROUP-RP-MAPPING`

group-name

Description Specifies the name of the view based access control model (VACM) group to which the combination of `security-model` plus `security-name` in the `security-properties` subprofile belongs.

Usage Specify a name of up to 23 characters.

Example **`set group-name = pluto`**

Location `VACM-ACCESS:access-properties`
`VACM-SECURITY-GROUP`

group-symmetry-mode

Description Specifies the symmetry mode of the inverse multiplexing over ATM (IMA) group to which this link belongs.

Usage Currently `symmetric-operation` is the only value for this parameter supported.

Symmetric operation entails symmetrical configuration and operation. An IMA link must be configured for each direction of all the physical links to be used, and the IMA unit is only allowed to transmit and receive ATM layer cells over the physical links on which IMA links running in both directions are active.

Example `set group-symmetry-mode = symmetric-operation`

Location `IMAGROUP`

gshdsl-psd-type

Description Specifies the rate or rates at which a modem outputs a symmetric power spectral density (PSD), based on the G.shdsl standard G.991.2.

Usage Valid values are as follows:

- `symmetric` (the default)—The modem outputs a symmetric power spectral density for all rates.
- `asymmetric-776k-psd-annex-a`—The modem outputs an asymmetric power spectral density at 776Kbps only. This parameter is valid only on annex A networks.
- `asymmetric-1544k-psd-annex-a`—The modem outputs an asymmetric power spectral density at 1544Kbps only. This parameter is valid only on annex A networks.
- `asymmetric-2056k-psd-annex-b`—The modem outputs an asymmetric power spectral density at 2056Kbps only. This parameter is valid only on annex B networks.
- `asymmetric-2312k-psd-annex-b`—The modem outputs an asymmetric power spectral density at 2312Kbps only. This parameter is valid only on annex B networks.
- `auto-detect`—Allows customer premise equipment (CPE) to automatically obtain rate setting from central office equipment (COE). Only the CPE can use autodetect.

Example `set gshdsl-psd-type = symmetric`

Location `HDSL2:line-config`
`SHDSL:line-config`

gshdsl-standard-network-type

Description Specifies the G.991.2 standard network type for the network that is connected to the single-pair high-rate digital subscriber line (SHDSL) port.

This setting configures a modem to output different characteristics that have been classified for North American and European networks.

Usage Valid values are as follows:

- `north-american-annex-a`—North American Annex A network.
- `european-annex-b`—European Annex B network.
- `auto-detect`—Allows customer premise equipment (CPE) to automatically obtain network type setting from central office equipment (COE). Only the CPE can use autodetect.

Example `set gshdsl-standard-network-type = north-american-annex-a`

Dependencies This parameter applies only if the `interface-type` parameter is set to `g-shdsl`.

Location `HDSL2:line-config`
`SHDSL:line-config`

H

h248

Description Read-only. Indicates whether H.248 protocol support is enabled or disabled on a Stinger unit.

Usage Read-only parameter with one of the following values:

- `yes`—H.248 protocol support is enabled.
- `no`—H.248 protocol support is disabled.

Example `h248 = yes`

Location `BASE`

hardware-level

Description Read-only. Indicates a one-character or two-character string representing the hardware revision level of the module.

Usage The `hardware-level` setting is read-only. A value of 0 (zero) means that the revision level is unknown.

Example `hardware-level = 0`

Location `BASE`
`SLOT-INFO`

hardware-revision

Description Read-only. Indicates the level of revision for test head hardware in the copper loop test (CLT).

Usage The `hardware-revision` value is read-only.

Example `hardware-revision = 0`

Location `CLT-RESULT`

hardware-rework-count

Description Read-only. Indicates the number of times the module has been reworked.

Usage The `hardware-rework-count` setting is read-only.

Location `SLOT-INFO`

hardware-ver

Description Read-only. Indicates the hardware version of the line interface module (LIM) or of the ADSL modem.

Usage The `hardware-ver` setting is read-only.

Example `hardware-ver = 1`

Location `AL-DMT-STAT:physical-status`
`HDSL2-STAT:physical-status`
`SDSL-STAT:physical-status`
`SHDSL-STAT:physical-status`

hdlc-rx-crc-error-cnt

Description Read-only. Indicates the number of high-level data link control (HDLC) cyclic redundancy check (CRC) errors associated with this channel.

Usage Read-only numeric value with a range of 0 to 4294967295.

Example `hdlc-rx-crc-error-cnt = 28`

Location `SDSL-STAT:physical-statistic`

hdsl2

Description Specifies whether code images for HDSL2 32-port line interface modules (LIMs) are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Specifies that the system loads the code image if an HDSL2 32-port LIM is installed. This is the default.

- `load`—Specifies that the system loads the code image when one is present in the tar file.
- `skip`—Specifies that the system skips the code image when one is present in the tar file.

Note A module is considered present in the system if a `slot-type` profile exists for that module type. The system creates a `slot-type` profile when it first detects the presence of a module, and does not delete the profile unless you use the `slot –r` command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use `slot –r` to remove `slot-type` profiles for modules that are no longer installed in the system.

Example `set hdsl2 = auto`

Location `LOAD-SELECT`

hdsl2-shdsl-threshold-traps-enabled

Description Enables or disables HDSL2/SHDSL threshold traps (notifications).

Usage Specify one of the following values:

- yes—Enables HDSL2/SHDSL threshold traps. This is the default.
- `no`—Disables HDSL2/SHDSL threshold traps.

Example `set hdsl2-shdsl-threshold-traps-enabled = no`

Location `TRAP`

heart-beat-trap-enabled

Description Enables/disables the Stinger unit's ability to generate heartbeat traps after a period of trap inactivity. By default, the Stinger unit does not generate a heartbeat trap during periods of trap inactivity. For the system to generate a heartbeat trap after a specified interval of trap inactivity specified by the `heart-beat-trap-interval` parameter, specify `yes`. The sequence number for a heartbeat trap is the same as the number of the last nonheartbeat trap generated by the Stinger unit.

Usage Valid values are as follows:

- `yes`—Enables heartbeat traps.
- `no` (the default)—Disables heartbeat traps.

Example `set heart-beat-trap-enabled = yes`

Location `TRAP`

heart-beat-trap-interval

Description Time elapsed, in minutes, since the the Stinger unit last generated a trap before it sends a heartbeat trap.

Usage Specify a value from 1 through 60. The default value is 5.

Example `set heart-beat-trap-interval = 10`

Location `TRAP`

hec-cell-drop-counter

Description Read-only. Indicates the number of cells dropped by header error control (HEC) processing.

Usage The `hec-cell-drop-counter` value is read-only.

Example `hec-cell-drop-counter = 0`

Location `OC3-ATM-stat`

hec-correction-enabled

Description *Not currently used.* Specifies whether correction of cells received with a single-bit error in the header error control (HEC) is enabled.

Usage Valid values are as follows:

- `yes`—Specifies that correction of cells received with a single-bit error in the HEC is enabled.
- `no`—Specifies that correction of cells received with a single-bit error in the HEC is disabled. This is the default.

Example `set hec-correction-enabled = no`

Location `DS1-ATM:line-config`

hello-holddown

Description Specifies the initial value, in 100ms units, for the Hello hold-down timer used by a Private Network-to-Network Interface (PNNI) node to limit the rate at which it sends Hello packets.

Usage Specify a positive nonzero number.

Example `set hello-holddown = 10`

Location `PNNI-NODE-CONFIG[n]:node-timer`

hello-hold-time

Description Number of seconds a receiver of hello messages must consider the sender reachable before timing out the sender. The value must be greater than that of the `hello-interval` parameter.

Usage Specify a number of seconds from 1 to 65535. The default value is 105 seconds.

Example `set hello-hold-time = 120`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

hello-inactivity-factor

Description Specifies the inactivity factor a Private Network-to-Network Interface (PNNI) node uses to determine when a neighbor has stopped operating.

Usage Specify a number to designate neighbor inactivity. The default is 10.

Example `set hello-inactivity-factor = 5`

Location `PNNI-NODE-CONFIG[`*n*`]:node-timer`

hello-interval

Description Specifies the interval between Hello packets, as follows:

- For OSPF profiles, specifies the number of seconds between the Hello packets that the Open Shortest Path First (OSPF) router sends on the interface.
- For the `node-timer` subprofile, specifies the initial value, in seconds, for the Hello timer. In the absence of triggered Hellos, a Private Network-to-Network Interface (PNNI) node sends one Hello packet on each of its ports on this interval.

Usage Valid values are as follows:

- For OSPF profiles, specify an integer. The defaults are 10 seconds for connected routes, and 30 seconds for WAN connections and virtual links.
- For the `node-timer` subprofile, specify a positive nonzero number. The default is 15 seconds.

Example `set hello-interval = 10`

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`
`OSPF-VIRTUAL-LINK`
`PNNI-NODE-CONFIG[`*n*`]:node-timer`

hello-priority

Description Designated router (DR) election priority for the Stinger unit on the interface. The DR election priority is a 32-bit unsigned number contained in a hello message. A router with a numerically larger priority is preferred in electing a new DR.

Note Currently, the Stinger unit must not be elected DR on the LAN interface if the LAN supports Internet Group Management Protocol (IGMP) hosts.

Usage The valid range for this setting is from 0 to 4,294,967,295, with a default setting of 1.

Example `set hello-priority = 0`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

hello-priority-option

Description Whether the Stinger unit will participate in Designated router (DR) election on this interface.

Usage Valid values are as follows:

- `yes` (the default)—Enables participation in DR election.
- `no`—Disables participation in DR election.

Example `set hello-priority-option = no`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

hello-timer

Description Specifies the interval, in seconds, between Hello messages sent to the Layer 2 Tunneling Protocol (L2TP) network server (LNS).

Usage Specify a number from 0 to 600. The default is 60. The 0 setting specifies that no Hello messages are sent.

Example `set hello-timer = 60`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

high-ber-alarm

Description Enables or disables the setting of a relay alarm when the bit-error rate (BER) exceeds the `high-ber-alarm-threshold` value.

Usage Select one of the following values:

- yes—Enables setting a relay alarm when the bit-error rate (BER) exceeds `high-ber-alarm-threshold.`

- no—Disables setting a relay alarm when the bit-error rate (BER) exceeds high-ber-alarm-threshold. This is the default.

Example `set high-ber-alarm = yes`

Location SYSTEM

high-ber-alarm-threshold

Description Specifies the high bit-error rate (BER). When the bit-error rate exceeds the threshold, a relay alarm is set.

Usage Select one of the following values:

- 10-**-3—One error in 10^3 bits .
- 10-**-4—One error in 10^4 bits .
- 10-**-5—One error in 10^5 bits .

Example `set high-ber-alarm-threshold = 10-**-5`

Dependencies For high-ber-alarm-threshold to apply, high-ber-alarm must be set to yes.

Location SYSTEM

high-priority-weight

Description Specifies the weight of a queue on the high-priority scheduler. The relative weight determines how much of the scheduler's work cycle this queue can receive relative to other queues on the same scheduler.

Usage Specify a value in the range 0 to 15. The total weight per scheduler must be less than or equal to 128. The high-priority weight or low-priority weight must be nonzero if the queue is active.

Example `set high-priority-weight = 12`

Location SWITCH-CONFIG:atm-parameters:outgoing-queue

high-tx-output

Description Enables or disables high transmit output. This parameter specifies whether the DS3 cable length is more than 255 feet (77.7m).

Usage Valid values are as follows:

- For DS3-ATM profiles:
  - yes—Specifies that the DS3 cable length is more than 255 feet (77.7m).
  - no—Specifies that the DS3 cable length is less than 255 feet. This is the default.

For DS3 cables longer than 255 feet, set this parameter to yes.

- For E3-ATM profiles:

- yes—Specifies that the E3 cable length is more than 300 feet (92m).
- no—Specifies that the E3 cable length is less than 300 feet. This is the default.

For E3 cables longer than 300 feet, set this parameter to yes.

Example `set high-tx-output = yes`

Location DS3-ATM:line-config
E3-ATM:line-config

history-size

Description Enables/disables command logging for a system.

Usage Valid values are integers from 0 through 1000. With the default setting of zero (0), command logging is disabled for a Stinger system (the system logs no user commands). The system deletes all existing command logs when a users resets the value of the history-size parameter.

Example `set history-size = 100`

Location LOG

hlink-inact

Description Specifies the number of seconds the Private Network-to-Network Interface (PNNI) node continues to advertise a horizontal link for which it has not received and processed a logical group node (LGN) horizontal link group.

Usage Specify the number of seconds.The default is 120.

Example `set hlink-inact = 100`

Location PNNI-NODE-CONFIG[*n*]:node-timer

home-agent-password

Description Specifies the password required for Ascend Tunnel Management Protocol (ATMP) tunnel authentication.

Mobile client profiles must supply the password to initiate a tunnel. If the Foreign Agent supplies the proper password when requesting a tunnel, the Home Agent returns a RegisterReply message with a number that identifies the tunnel, and the mobile client's tunnel is established. If the password does not match, the Home Agent rejects the tunnel, and the Foreign Agent logs a message and disconnects the mobile client.

Usage Specify a text string of up to 20 characters.

Example `set home-agent-password = tunnel-password`

Location ATMP

home-network-name

Description In an Ascend Tunnel Management Protocol (ATMP) mobile client profile, specifies the name of the gateway profile that defines the connection to the home network when the ATMP Home Agent is operating in gateway mode.

Usage If `profile-type` is set to `mobile-client` and `agent-type` is set to `gateway-home-agent`, enter the setting specified for `station` in the `connection` profile on the Home Agent. Otherwise, leave the default of null.

Example `set home-network-name = myhome`

Dependencies This setting applies only when `tunneling-protocol` is set to `atmp-protocol` and `profile-type` is set to `gateway-profile`.

Location `CONNECTION:tunnel-options`

hop-level

Description Number of hops (ATM switches) between the Stinger unit and a virtual circuit end point that is permitted to use the queue. This parameter is used to restrict a configured queue for use by virtual circuits originating a certain distance away.

Usage Valid values are as follows:

- `any-level` (the default)—Specifies that virtual circuits originating from a node that is any number of hops away from the Stinger unit are permitted into this queue.
- `0-level`—Specifies that virtual circuits originating from a node that is zero hops away are permitted into this queue.
- `1-level`—Specifies that virtual circuits originating from a node that is one hop away are permitted into this queue.
- `2-level`—Specifies that virtual circuits originating from a node that is two hops away are permitted into this queue.
- `3-level`—Specifies that virtual circuits originating from a node that is three hops away are permitted into this queue.

Example `set hop-level = 1-level`

Location `SWITCH-CONFIG:atm-parameters:outgoing-queue[`*n*`]`

host

Description Specifies the Domain Name System (DNS) hostname or address of a host on the network, as follows:

- In a `connection` profile, the `host` value specifies the first host that the Stinger unit attempts to use for a TCP-clear connection.
- In the `ip-global` profile, the `host` value is an array of IP addresses for up to three Simple Network Time Protocol (SNTP) servers. The Stinger unit always queries the first address unless it is inaccessible. In that case, the unit attempts to communicate with the second address, trying the third address only if the other two are inaccessible.

- In the log profile and the auxiliary-syslog[1] and auxiliary-syslog[2] subprofiles of the log profile, the host value specifies the host to which the Stinger unit sends syslog messages for the first, second, and third data stream, respectively.

Usage Valid values are as follows:

- For an auxiliary-syslog subprofile, specify the host to which the unit sends syslog messages.
- For a connection profile, specify the name of one or more login hosts to use for TCP-clear connections. You can enter a name of up to 32 characters for each host. The default is null.
- For the ip-global profile, specify up to three IP addresses of SNTP servers, in dotted decimal notation. The default is 0.0.0.0.
- For the log profile, specify the IP address of a UNIX syslog server, in dotted decimal notation. The default is 0.0.0.0.

Example Use the following examples to help you set the host value:

- The following example sets addresses for the first, second, and third SNTP servers in an ip-global profile:

```
set host 1 = 1.1.1.1
set host 2 = 1.1.1.2
set host 3 = 1.1.1.3
```

- The following example sets the first login TCP-clear login host in a connection profile:

```
set tcp-clear-options host = mars
```

Dependencies Consider the following:

- In the log profile, the host value affects all data streams. However, the host value in each auxiliary-syslog subprofile affects the individual data stream directed to the specified device, and overrides the value in the log profile.
- In a connection profile, the host, host2, host3, and host4 values specify the names of up to four login hosts to use for TCP-clear connections. If the TCP connection to the first specified host fails, the system attempts to connect to the next specified host, and so on, up to host4. If all connection attempts fail, the session terminates and the Stinger unit returns a TCP connection error to the dial-in client.

Location CONNECTION:tcp-clear-options
IP-GLOBAL:sntp-info
LOG
LOG:auxiliary-syslog

host2
host3
host4

Description Specifies the name of a login host that the Stinger unit attempts to use for TCP-clear connections.

Usage Specify a name of up to 32 characters. The default is null.

Example The following examples set addresses for the second, third, and fourth TCP-clear login hosts:

```
set host2 = mercury
set host3 = jupiter
set host4 = saturn
```

Dependencies The `host`, `host2`, `host3`, and `host4` values specify the names of up to four login hosts to use for TCP-clear connections. If the TCP connection to the first specified host fails, the system attempts to connect to the next specified host, and so on, up to `host4`. If all connection attempts fail, the session terminates and the Stinger unit returns a TCP connection error to the dial-in client.

Location `CONNECTION:tcp-clear-options`

host-address

Description Specifies the address to which the Stinger unit sends trap (notification) protocol data units (PDUs).

Usage Specify an IP address in dotted decimal notation. The default is 0.0.0.0.

Example `set host-address = 10.2.3.4/24`

Dependencies Consider the following:

- If `host-address` is set to 0.0.0.0 and the Domain Name System (DNS) or Yellow Pages/Network Information System (YP/NIS) is supported, the Stinger unit looks up the host address and sends trap PDUs.
- If `host-address` is set to `0.0.0.0` and `community-name` is null, traps are disabled.

Location `TRAP`

host-name

Description Specifies a hostname or a fully qualified domain name for a hostname-address entry in the local Domain Name System (DNS) table.

Usage Specify a hostname or fully qualified domain name. A hostname must be unique within the local DNS table, must start with an alphabetic character, and must have fewer than 256 characters. Trailing periods are ignored in the comparison.

Example `set host-name = mercury.abc.com`

Dependencies Consider the following:

- If the name does not include a domain name, and you have specified one or more `domain-name` settings, the system appends the specified domain name when looking up the hostname.
- If `auto-update` is enabled and the corresponding `ip-address` value for a `host-name` setting specifies the default zero address, successful DNS queries will gradually build the local table.

Location `IP-GLOBAL:dns-local-table:table-config[`*n*`]`
`TRAP`

host-port

Description Specifies the port to which traps are sent.

Usage Specify a number from 1 to 65535. The default is 162.

Example `set host-port = 20`

Location `TRAP`

hosts-info *n*

Description *Not used.*

Location `EXT-TSRV`

I

icmp-reply-directed-bcast

Description Enables or disables responding as a host to directed-broadcast Internet Control Message Protocol (ICMP) echo requests.

If an attacker compromises another router on the same Ethernet network as the Stinger unit, ICMP echo requests to the broadcast address might involve the router in denial-of-service attacks. Change this parameter's default setting to prevent the Stinger unit from responding to directed-broadcast ICMP Echo Request packets sent to the IP broadcast address.

Usage Specify `yes` or `no`. The default is `yes`.

- `yes`—Responds to directed-broadcast ICMP echo requests.
- `no`—Does not respond to directed-broadcast ICMP echo requests.

Example `set icmp-reply-directed-bcast = no`

Location `IP-GLOBAL`

id-auth-prefix

Description Specifies the string inserted as a prefix to the telephone number presented to the RADIUS server in caller-ID (CLID) or Dialed Number Information Service (DNIS) authentication requests.

Usage Specify a string of up to 16 characters. The default is null.

Example `set id-auth-prefix = test`

Location `EXTERNAL-AUTH:rad-auth-client`

idle-cell-counter

Description Read-only. Indicates the total number of idle cells received by the Stinger unit.

Usage The `idle-cell-counter` value is read-only.

Example `idle-cell-counter = 0`

Location `OC3-ATM-STAT`

idle-logout

Description Specifies the number of seconds a Telnet session can remain logged in with no keyboard activity.

Usage Specify a number of seconds. The default is 0 (zero), which specifies that the station can remain logged in indefinitely.

Example `set idle-logout = 60`

Location `SYSTEM`
`USER`

idle-timer

Description Specifies a time limit as follows:

- In the `answer-defaults` and `connection` profiles, specifies the number of *seconds* the system waits before clearing a call when a session is inactive (when no packets are being transmitted through the router to the WAN connection).
- In the `atmp` profile, specifies the number of *minutes* that the Home Agent maintains an idle tunnel before disconnecting it.

Usage Specify a number from 0 to 65535. A setting a value of 0 (zero) disables the idle timer, so that an idle call or tunnel is maintained indefinitely.

- In the `answer-defaults` and `connection` profiles, the default setting is 120 seconds.
- In the `atmp` profile, the default is 0 (zero) minutes.

Example `set idle-timer = 30`

Location ANSWER-DEFAULTS:session-info
ATMP
CONNECTION:session-options

idsl-bandwidth

Description Specifies the IDSL subscriber bandwith setting.

Usage Valid values are as follows:

- idsl-128—IDSL line has 128Kbps available for subscriber data.
- idsl-144—IDSL line has 144Kbps available for subscriber data.

Example **idsl-bandwidth = idsl-128**

Location IDSL:line-interface

idt-enable

Description Specifies whether the internal diagnostic test (IDT) feature is enabled on a line.

Usage Valid values are as follows:

- yes—Specifies that loopback testing is enabled on the line.
- no—Specifies that loopback testing is not enabled on the line. This is the default.

Example **set idt-enable = yes**

Location LINE-DIAG

idt-error-counter

Description Read-only. Indicates the number of error messages received in an internal diagnostic test (IDT).

Usage The valid range for this read-only parameter is from 0 to 2147483647.

Example idt-error-counter = 300

Location LINE-DIAG-STAT

idt-num-of-msg

Description Specifies the number of messages that the control module sends to the line in an internal diagnostic test (IDT).

Usage Enter a number from 0 to 214784647. The default is 1000.

Example **set idt-num-of-msg = 2000**

Location LINE-DIAG

idt-operation-state

Description Specifies whether the internal diagnostic test (IDT) is active on the line.

Usage Valid values are as follows:

- `stopped`—Specifies that the test is not active. This is the default.
- `active`—Specifies that the line is undergoing the internal diagnostic test.

Example `set idt-operation-state = active`

Location `LINE-DIAG-STAT`

idt-recv-count

Description Read-only. Indicates the number of messages received by the control module in an internal diagnostic test (IDT).

Usage Valid range for this read-only parameter is from 0 to 2147483647.

Example `idt-recv-count = 100`

Location `LINE-DIAG-STAT`

idt-send-count

Description Read-only. Indicates the number of messages sent by the control module in an internal diagnostic test (IDT)

Usage Valid range for this read-only parameter is from 0 to 2147483647.

Example `idt-send-count = 100`

Location `LINE-DIAG-STAT`

id-valid

Description Indicates whether the `validation-id` setting in the `remote-shelf-config` profile matches the validation ID specified by the remote shelf's DIP-switch setting.

Usage This parameter is read-only. Valid values are as follows:

- `disabled`—No validation was performed.
- `true`—Validation was done, and the software validation ID setting matched the DIP switch setting.
- `false`—Validation was done, and the software validation ID setting did not match the DIP switch setting.

Location `REMOTE-SHELF-STAT:validation-status`

if-adm-weight-abr

Description Specifies the administrative weight of a Private Network-to-Network Interface (PNNI) for the available bit rate (ABR) service category.

Usage Administrative weight is a value used to specify preferential use of a link or node for a specific service category—in this case, for the PNNI ABR category. It is one of the elements of topology-state information exchanged among the nodes, along with a dynamic assessment of available bandwidth, assigned metrics, and other possible attribute values, all of which affect how the most efficient link is chosen at a given time.

Enter a numeric value from 0 to 4294967295. The default value is 5040.

Example `set if-adm-weight-abr = 5040`

Location PNNI-IF-CONFIG

if-adm-weight-cbr

Description Specifies the administrative weight of a Private Network-to-Network Interface (PNNI) for the constant bit rate (CBR) service category.

Usage Administrative weight is a value used to specify preferential use of a link or node for a specific service category—in this case, for the PNNI CBR category. It is one of the elements of topology state information exchanged among the nodes, along with a dynamic assessment of available bandwidth, assigned metrics, and other possible attribute values, all of which affect how the most efficient link is chosen at a given time.

Enter a numeric value from 0 to 4294967295. The default value is 5040.

Example `set if-adm-weight-cbr = 5040`

Location PNNI-IF-CONFIG

if-adm-weight-nrt-vbr

Description Specifies the administrative weight of a Private Network-to-Network Interface (PNNI) for the non-real-time variable bit rate (NRT-VBR) service category.

Usage Administrative weight is a value used to specify preferential use of a link or node for a specific service category—in this case, for the PNNI VBR category. It is one of the elements of topology state information exchanged among the nodes, along with a dynamic assessment of available bandwidth, assigned metrics, and other possible attribute values, all of which affect how the most efficient link is chosen at a given time.

Enter a numeric value from 0 to 4294967295. The default value is 5040.

Example `set if-adm-weight-nrt-vbr = 5040`

Location PNNI-IF-CONFIG

if-adm-weight-rt-vbr

Description Pertains to the characterization of nodes in the Private Network-to-Network Interface (PNNI). Specifies the administrative weight of this interface for the real-time-variable bit rate (RT-VBR) service category.

Usage Administrative weight is a value used to specify preferential use of a link or node for a specific service category. It is one of the elements of topology state information exchanged among the nodes, along with a dynamic assessment of available bandwidth, assigned metrics, and other possible attribute values, all of which affect how the most efficient link is chosen at a given time.

Enter a numeric value from 0 to 4294967295. The default value is 5040.

Example `set if-adm-weight-rt-vbr = 5040`

Location PNNI-IF-CONFIG

if-adm-weight-ubr

Description Specifies the administrative weight of this interface for the unspecified bit rate (UBR) service category.

Usage Administrative weight is a value used to specify preferential use of a link or node for a specific service category, in this case for a Private Network-to-Network Interface (PNNI). It is one of the elements of topology state information exchanged among the nodes, along with a dynamic assessment of available bandwidth, assigned metrics, and other possible attribute values, all of which affect how the most efficient link is chosen at a given time.

Enter a numeric value from 0 to 4294967295. The default value is 5040.

Example `set if-adm-weight-ubr = 5040`

Location PNNI-IF-CONFIG

if-aggr-token

Description Specifies the configured aggregation token for the associated Asynchronous Transfer Mode (ATM) interface.

An aggregation token is used to determine which links to a given neighbor node are to be aggregated and used as a single logical link.

Usage Enter a numeric value from 0 to 4294967295. The default value is 0.

Example `set if-aggr-token = 0`

Location PNNI-IF-CONFIG

if-auto-spare-info[*n*]

Description Read-only. Indicates the slot number of port *n* being monitored for automatic port redundancy.

Usage A read-only array parameter having one entry for each port on the sparing bus. The individual entry is a numeric value with a range of 0 to 4294967295. The default value is 0, which indicates that the port is not monitored.

Example `if-auto-spare-info[2] = 23`

Location `IF-SPARING-CONFIG`

if-group-index

Description Read-only. Indicates the Simple Network Management Protocol (SNMP) interface group index assigned to the line.

Usage The `if-group-index` setting is read-only.

Example `if-group-index = 0`

Location `AL-DMT-STAT:physical-status`
`HDSL2-STAT:physical-status`
`IDSL-STAT:physical-status`
`SDSL-STAT:physical-status`
`SHDSL-STAT:physical-status`

if-index

Description Specifies the local interface over which the reachable address can be reached.

Usage Specify a value. The default, 0 (zero), indicates an unknown interface or reachability through a remote node.

Example **`set if-index = 0`**

Location `PNNI-ROUTE-ADDR`

if-ip

Description Specifies the IP address of one of the IP2000 IP interfaces.

Usage Specify an IP address. The default is 0.0.0.0.

Example **`set if-ip = 10.10.10.10`**

Dependencies Consider the following:

- If no value is specified in the `if-ip` field of an enabled `circuit-id` or `remote-id` subprofile, the Stinger uses the system address (`ip-global:system-ip-addr`) if that value has been defined.

- If you set the `if-ip` value in both the `circuit-id` and `remote-id` subprofiles, only one interface IP address is needed.

Location `IP-GLOBAL:bootp-relay:relay-agent-information:circuit-id`
`IP-GLOBAL:bootp-relay:relay-agent-information:remote-id`

if-node-index

Description Specifies the Private Network-to-Network Interface (PNNI) node within the switching system that the interface is directly attached to.

Usage Specify a number from 1 to 65535. The value 0 (zero) is not a valid value.

Example `set if-node-index = 1`

Location `PNNI-IF-CONFIG`

if-number

Description Read-only. Indicates the interface number.

Usage The `if-number` value is read-only.

Example `if-number = 159`

Location `ATM-IF-STAT`

if-port-id

Description Read-only. Indicates the nailed-group number associated with the trunk port.

Usage The system assigns each interface a unique default number. This value is read-only.

Example `if-port-id = 0`

Location `PNNI-IF-CONFIG`

if-rcc-qos-name

Description Specifies the quality-of-service (QoS) contract name for the Private Network-to-Network Interface (PNNI) routing control channel.

Usage Specify a contract name with up to 31 alphanumeric characters.

Example `set if-rcc-qos-name = pnni-qos-1`

Location `PNNI-IF-CONFIG`

if-rcc-service-category

Description Specifies the service category used for the Private Network-to-Network Interface (PNNI) routing control channel (RCC) on the interface assigned in this profile.

Usage Valid values are as follows:

- `cbr`—Constant bit rate. A service class for connections that depend on precise clocking to ensure undistorted delivery of bits.
- `vbr-rt`—Variable bit rate real-time. A service class that handles the packaging of special delay-sensitive applications (such as packet video) that require low cell-delay variation between end points.
- `vbr-nrt`—Variable bit rate non-real-time. A service class that handles packaging for the transfer of long, bursty data streams over a preestablished ATM connection.
- `ubr`—Unspecified bit rate. A service class that handles bursty LAN traffic, as well as data that accepts delays and cell loss. It is a best-effort service that does not specify bit rates or traffic values, and offers no quality of service (QoS) guarantees.

Example `set if-rcc-service-category = nrt-vbr`

Location `PNNI-IF-CONFIG`

if-rcc-traffic-descr-index

Description Specifies the traffic descriptor index used for traffic allocation for the Private Network-to-Network Interface (PNNI) routing control channel (VCI = 18) on this interface.

Usage The default 2 specifies the default-control service contract used by default for PNNI signaling and routing control.

Example `set if-rcc-traffic-descr-index = 2`

Location `PNNI-IF-CONFIG`

if-remote-address

Description Specifies the IP address of the numbered interface at the remote end of a link.

Usage Specify the IP address of the numbered interface in dotted decimal notation. The default is 0.0.0.0.

Example `set if-remote-address = 10.1.2.3`

Dependencies For `if-remote-address` to apply, you must enable IP for the `connection` profile.

Location `CONNECTION:ip-options`

if-spare-slot[*n*]

Description Read-only. Indicates the slot number of the redundant (spare) line interface module (LIM) port *n* backing up LIM port *n*.

Usage A read-only array parameter having one entry for each port on the sparing bus. If the slot number is 0, then the redundant (spare) LIM port is not being used. This is the default value.

Example `if-spared-slot[10] = 5`

Location `IF-SPARING-CONFIG`

if-spared-slot[*n*]

Description Read-only. Indicates the slot number of the line interface module (LIM) port *n* being replaced by the redundant (spare) LIM port *n*.

Usage A read-only array parameter having one entry for each port on the sparing bus. If the slot number is 0, then the port is not being replaced by the redundant (spare) LIM port. This is the default value.

Example `if-spared-slot[5] = 10`

Location `IF-SPARING-CONFIG`

if-sparing-config[*n*]

Description Read-only. Indicates the slot number of the line interface module (LIM) port *n* being replaced by the redundant (spare) LIM port *n*.

Usage A read-only array parameter having one entry for each port on the sparing bus. If the slot number is 0, then the port is not being replaced by the redundant (spare) LIM port. This is the default value.

Example `if-sparing-config[5] = 10`

Location `LIM-SPARING-CONFIG`

if-vp-capability

Description Enables or disables the ability to establish a virtual private channel (VPC) on the interface.

Usage Valid values are as follows:

- `true`—A VPC can be established on this interface.
- `false`—A VPC cannot be established on this interface.

Example **`set if-vp-capability = false`**

Dependencies Only physical ATM interfaces can set this parameter to `true`. If it is set to `true` on any other type of interface, the setting is ignored.

Location `PNNI-IF-CONFIG`

ignore-cell-delay-variation-tolerance

Description Enables or disables the system's use of cell delay variation tolerance (CDVT).

Usage Valid values are as follows:

- yes—The `cell-delay-variation-tolerance` parameter is ignored. This internal parameter is used to tolerate bursty customer premises equipment (CPE) that has inadequate or no traffic shaping capability. This is the default.
- no—The `cell-delay-variation-tolerance` parameter is not ignored.

Example `set ignore-cell-delay-variation-tolerance = no`

Dependencies When this parameter is set to `no`, the `ignore-max-burst-size` parameter is applied.

This parameter does not apply when PCR policing is disabled. PCR policing is disables when `peak-rate-kbits-per-sec` and `cell-delay-variation-tolerance` values are set to zero.

Location `ATM-QOS`

ignore-def-route

Description Enables or disables exclusion of advertised default routes from updates to the routing table.

Enabling this feature protects the system's local default route from being modified by RIP updates.

Usage Valid values are as follows:

- `yes`—The system does not add advertised default routes to the local routing table. This setting (which is recommended) prevents updates from modifying the default route in the routing table. This is the default.
- `no`—The system includes advertised default routes in routing table updates.

Example `set ignore-def-route = no`

Location `IP-GLOBAL`

ignore-icmp-redirects

Description Enables or disables processing of Internet Control Message Protocol (ICMP) Redirect packets.

ICMP Redirect packets can be counterfeited and used to change the way a device routes packets. For security purposes, many sites choose to ignore ICMP redirects.

Usage Valid values are as follows:

- `yes`—The system ignores ICMP Redirect packets.
- `no`—The system processes ICMP Redirect packets normally. This is the default.

Example `set ignore-icmp-redirects = yes`

Location IP-GLOBAL

ignore-lineup

Description This parameter is used differently in the system profile and in a line profile. A line profile is a profile for a particular line type (al-dmt, ds1-atm, e3-atm, and so on).

- In a line profile, ignore-linup specifies whether the line status of a slot determines the Stinger call-control mechanism on a specified port.
- In the system profile, ignore-linup specifies whether the Stinger unit ignores line status when determining whether calls are established.

Usage Valid values are as follows:

- In a line profile, specify one of the following values for this parameter:
  - system-defined—Sets the Stinger unit to inherit the ignore-lineup value from the system profile. This is the default.
  - no—Sets the Stinger call-control mechanism to ignore the system-wide ignore-lineup setting and allows calls to be established when the line state is UP and disallow calls on the port when the line state is DOWN.
  - yes—Sets the Stinger call-control mechanism to ignore both the line state and the system-wide setting and allows calls to be established on the specified port as long as the specified slot is operational and the specified port is enabled.
- In the system profile, specify one of the following values for this parameter:
  - no—The Stinger call-control mechanism allows calls to be established when the line state is UP and disallow calls when the line state is DOWN. This is the default.
  - yes—The Stinger call-control mechanism ignores the line state and allows calls to be established on a port as long as the specified slot is operational and the specified port is enabled.

Example `set ignore-lineup = yes`

Location AL-DMT
DS1-ATM
DS3-ATM
E3-ATM
HDSL2
IDSL:line-interface
IMAGROUP
OC3-ATM
SHDSL
SDSL
SYSTEM

ignore-max-burst-size

Description Enables or disables the system's use of the `max-burst-size` parameter setting.

Usage Valid values are as follows:

- `yes`—Specifies the `max-burst-size` parameter is ignored. Instead an internal parameter is used to tolerate bursty customer premises equipment (CPE) that does not have or has inadequate traffic shaping capability. This is the default.
- `no`—Specifies that the `max-burst-size` parameter is applied.

Example `set ignore-max-burst-size = no`

Dependencies This parameter does not apply when SCR policing is disabled. SCR policing is disabled when `sustainable-rate-kbits-per-sec` and `max-burst-size` values are set to zero.

Location `ATM-QOS`

ilmi-admin-status

Description Enables or disables Integrated Local Management Interface (ILMI) connectivity procedures. *ILMI is not supported with the current software version.*

Usage This parameter must be set to `yes` to enable ILMI connectivity procedures. Specify one of the following values:

- `yes`—Enables ILMI connectivity.
- `no` (the default)—Disables ILMI connectivity.

Example `set ilmi-admin-status = yes`

Dependencies ILMI connectivity is enabled only when both `ilmi-admin-status` and `ilmi-connectivity` are set to `yes`. ILMI connectivity is disabled if `ilmi-admin-status` or `ilmi-connectivity` is set to `no`.

Location `ATM-IF-CONFIG:extension-config`

ilmi-connectivity

Description Enables or disables Integrated Local Management Interface (ILMI) connectivity procedures. *ILMI is not supported with the current software version.*

Usage Specify one of the following values:

- yes—Enables ILMI connectivity.
- `no` (the default)—Disables ILMI connectivity.

Example `set ilmi-connectivity = yes`

Dependencies ILMI connectivity is enabled only when both `ilmi-admin-status` and `ilmi-connectivity` are set to `yes`. ILMI connectivity is disabled if `ilmi-admin-status` or `ilmi-connectivity` is set to `no`.

Location ATM-IF-CONFIG:extension-config

ilmi-link-state

Description Read-only. Specifies the Integrated Local Management Interface (ILMI) link state of the port. *ILMI is not supported with the current software version.*

Usage Read-only parameter with one of the following values:

- not-configured—The component is not configured. This is the default.
- up—The component is in UP state.
- down—The component is in DOWN state.

Example ilmi-link-state = up

Location ATM-IF-STAT

ilmi-vci

Description *Integrated Local Management Interface (ILMI) is not supported with the current software version.* Specifies the virtual channel identifier (VCI) value for the virtual channel connection (VCC) supporting the ILMI at this ATM interface

Dependencies If this value and the value of the ilmi-vpi parameter are both equal to zero then the ILMI is not supported at this ATM interface.

Example set ilmi-vci = 0

Location ATM-IF-CONFIG:base-config

ilmi-vpi

Description *Integrated Local Management Interface (ILMI) is not supported with the current software version.* Specifies the virtual channel identifier (VCI) value for the virtual channel connection (VCC) supporting the ILMI at this ATM interface.

Dependencies If this value and the value of the ilmi-vci parameter are both equal to 0 (zero) then the ILMI is not supported at this ATM interface.

Example set ilmi-vpi = 0

Location ATM-IF-CONFIG:base-config

ima

Description Specifies whether code images for T1 and E1 modules are to be stored in flash memory.

Usage Valid values are as follows:

- auto—Specifies that the system loads the code image if a T1 or E1 module is installed. This is the default.

- `load`—Specifies that the system loads the code image when one is present in the tar file.
- `skip`—Specifies that the system skips the code image when one is present in the tar file.

Note A module is considered present in the system if a `slot-type` profile exists for that module type. The system creates a `slot-type` profile when it first detects the presence of a module, and does not delete the profile unless you use the `slot –r` command to permanently remove a module that is no longer installed in the system, or clear nonvolatile RAM (NVRAM). To ensure that the system does not load unnecessary images, use `slot –r` to remove `slot-type` profiles for modules that are no longer installed in the system.

Example `set ima = auto`

Location `LOAD-SELECT`

ima-enabled

Description Read-only. Indicates the status of the inverse multiplexing over ATM (IMA) feature.

Usage Read-only parameter with one of the following values.

- `yes`—IMA feature is enabled.
- `no`—IMA feature is not enabled.

Example `ima-enabled = yes`

Location `BASE`

ima-id

Description Specifies the inverse multiplexing over ATM (IMA) identifier of the IMA group.

Usage Specify a number from 0 (zero) to 255.

Example `set ima-id = 7`

Location `IMAGROUP`

ima-violations-counter

Description Read-only. Indicates the number of inverse multiplexing over ATM (IMA) Control Protocol (ICP) violations.

ICP violations are errored, invalid, or missing ICP cells in a 15-minute interval. This value does indicate severely errored seconds-IMA (SES-IMA) or unavailable-seconds-IMA (UAS-IMA) conditions.

Usage The valid range is from 0 (zero) to 2147483647.

Example `ima-violations-counter = 0`

Location DS1-ATM-STAT:ima-link-statistic

impulse-noise-read-high-threshold

Description Read-only. Indicates the number of impulse events with levels exceeding the threshold value plus 2delta in a copper loop test (CLT).

Usage The value is read-only.

Example impulse-noise-read-high-threshold = 0

Location CLT-RESULT

impulse-noise-read-low-threshold

Description Read-only. Indicates the number of impulse noise events with levels between the threshold and the threshold plus delta in a copper loop test (CLT).

Usage The value is read-only.

Example impulse-noise-read-low-threshold = 0

Location CLT-RESULT

impulse-noise-read-mid-threshold

Description Read-only. Indicates the number of impulse events with levels between threshold plus delta and threshold plus 2delta in a copper loop test (CLT).

Usage The value is read-only.

Example impulse-noise-read-mid-threshold = 0

Location CLT-RESULT

impulse-noise-start-dead-time

Description Specifies the measurement delay, in tenths (0.1) of a millisecond, after the Stinger unit detects the initial impulse in a copper loop test (CLT).

Usage Specify a number from 10 to 2550.

Example **set impulse-noise-start-dead-time = 11**

Location CLT-COMMAND

impulse-noise-start-delta

Description Specifies the amount above threshold, in decibels below 1 milliwatt (dBm), for noise spike detection in a copper loop test (CLT).

Usage Specify a number from 2 to 6.

Example `set impulse-noise-start-delta = 4`

Location CLT-COMMAND

impulse-noise-start-max-count

Description Specifies the maximum number of impulse events to be counted during a single measurement in a copper loop test (CLT).

Usage Specify a number from 1 to 9999.

Example `set impulse-noise-start-max-count = 200`

Location CLT-COMMAND

impulse-noise-start-thresh

Description Specifies the threshold value, in decibels below 1 milliwatt (dBm), of the smallest noise spike detected in a copper loop test (CLT).

Usage Specify a number from 50 to 100.

Example `set impulse-noise-start-thresh = 60`

Location CLT-COMMAND

impulse-noise-start-timer

Description Specifies the duration, in minutes, of impulse noise measurement in a copper loop test (CLT).

Usage Specify a number from 1 to 9999.

Example `set impulse-noise-start-timer = 30`

Location CLT-COMMAND

inactivity-time

Description Specifies how long the unit waits before disconnecting an inactive modem connection.

Usage Specify a number of seconds from 0 through 255. The default is 0 (zero), which specifies that an inactive modem connection is not disconnected after any period of inactivity.

Example `set inactivity-time = 60`

Location MODEM

inauguration-time

Description Read-only. Indicates the time at which the controller in this context started waiting for the other controller to load the operational software.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `inauguration-time = 12324`

Location `REDUNDANCY-STATS:context-stats`

incoming-cells

Description Read-only. Indicates the number of cells coming in on the interface.

Usage This read-only statistic helps you verify the operation of the physical interface.

Example `incoming-cells = 92`

Location `AL-DMT-STAT:physical-statistic`

incoming-priority

Description Specifies the relative priority of Asynchronous Transfer Mode (ATM) cells incoming from this line interface module (LIM) or control module slot.

Usage Valid values are as follows:

- `high-priority`—ATM cells incoming from this LIM or control module slot have a higher priority than others.
- `low-priority`—ATM cells incoming from this LIM or control module slot have a lower priority than others. This is the default.

Example **`set incoming-priority = high-priority`**

Location `HIGH-SPEED-SLOT-STATIC-CONFIG:atm-parameters`

increment-channel-count

Description Specifies the number of channels the Stinger unit adds for a manual or automatic bandwidth change during a call.

Usage Specify an number from 1 to 32. The default is 1.

Example **`set increment-channel-count = 3`**

Location `ANSWER-DEFAULTS:mpp-answer`
`CONNECTION:mpp-options`

in-defect-int-time

Description *Not currently used.* Specifies the maximum amount of time, in milliseconds, allowed for the system to learn the receiving link ID (RX LID) in intelligent call processing (ICP) cells.

If the defect is persistent for this time, the link enters the FAILED state.

Usage The valid range is from 0 (zero) to 2147483647.

Example `set in-defect-int-time = 2500`

Location `DS1-ATM:line-config:ima-option-config:rxlink-config`

index

Description Indicates an internal index, or distinguishes between multiple listings.

Usage Valid values are as follows:

- In the `index` subprofile of the `error` profile, the value of the `index` parameter indicates the internal index of the entry. The `index` setting is read-only.
- In the `index` subprofile of the `atm-spvc-addr-configr` profile, you specify the value of the `index` parameter to distinguish between multiple listings of connectivity to a given address prefix from the local node.
- In the `index` subprofile of the `call-route` profile, you specify the index of this call routing profile entry. The index contains the physical address of the device to which a call can be routed and an entry number allowing multiple entries for a device.
- The `index` parameter of the `cmd-log` profile is the index number of the command log.This parameter is read-only.

Example `index = mithra0`

Location `ATM-SPVC-ADDR-CONFIG`
`CALL-ROUTE`
`cmd-log`
`ERROR`

index-name

Description Specifies the name of the `pnni-summary-addr` profile corresponding to the values of the `addr-index` subprofile.

Usage Specify an index name up to 50 alphanumeric characters in length.

Example `set index name = summary_addr_one`

Location `PNNI-SUMMARY-ADDR`

inet-profile-type

Description Read-only. Indicates whether the dedicated (nailed-up) profile associated with the hostname in the `admin-state-perm-if` profile is a local profile or a profile from the RADIUS server.

Usage The `inet-profile-type` setting is read-only. The number 0 (zero) indicates a local profile. The number 1 (one) indicates a RADIUS profile.

Example `inet-profile-type = 1`

Location `ADMIN-STATE-PERM-IF`

info

Description *Not used.* Specifies a reference to management information base (MIB) definitions specific to the routing protocol set in the `proto` parameter.

Usage This parameter is currently set to the null string.

Example `set info = ""`

Location `PNNI-ROUTE-ADDR`

information

Description Command-line interface command entered by the user.

Usage This parameter is read-only.

Example `information = "dir cmd-log"`

Location `cmd-log`

inform-retry-count

Description Read-only. Indicates the number of retries attempted when acknowledgement is not received for an Inform protocol data unit (PDU).

Usage This parameter is read-only. The valid range is from 0 to 2147483637. The default is 4.

Example `inform-retry-count = 10`

Location `TRAP`

inform-time-out

Description *Not used.* Read-only. Indicates the timeout interval in units of 0.01 seconds after which the Inform protocol data unit (PDU) is retransmitted on receiving no acknowledgement.

Usage This parameter is read-only. The valid range is from 0 to 2147483637. The default is 1500.

Example `inform-time-out = 1000`

Location `TRAP`

init-banner *n*

Description *Not used.*

Location `EXT-TSRV`

initial-adsl-ver

Description Read-only. Indicates the number of changes made to the Alcatel Proprietary Exchange phase in this version of the software.

Usage The `initial-adsl-ver` value is read-only. The current value is 1.

Note This parameter is valid only for the ADSL 12-port LIM, which is based on the Alcatel chipset.

Example `initial-adsl-ver = 1`

Dependencies Both ends of the connection must agree on the value of `initial-adsl-ver` parameter for the chip sets to take advantage of the advanced functionality supported by Alcatel equipment.

Location `AL-DMT-STAT:physical-status`

initialization-time

Description Read-only. Indicates the time at which the controller in this context sets its function.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Location `REDUNDANCY-STATS:context-stats`

init-time

Description Specifies the number of seconds the Private Network-to-Network Interface (PNNI) node delays advertising its choice of the preferred peer group leader (PGL), after having initialized operation and reached the full state with a least one neighbor in the peer group.

Note This parameter is not currently supported in the `node-svcc-rcc` subprofile.

Usage Specify the number of seconds.

Example `set init-time = 15`

Location `PNNI-NODE-CONFIG[`*n*`]:node-pgl`
`PNNI-NODE-CONFIG[`*n*`]:node-svcc-rcc`

installation-complete

Description Read-only. Indicates whether the first-time installation menu has been run and NVRAM first initialized.

Usage Read-only parameter with the following possible values:

- `yes`—NVRAM has not been first initialized.
- `no`—NVRAM has been first initialized.

Example `installation-complete = no`

Location `SYSTEM`

interface-address

Description Specifies the physical address of the Ethernet interface in the Stinger unit, or, if the item number is not zero, the IP virtual interface address.

Usage In most cases, the `interface-address` value is obtained from the system. However, you can modify it in an `ip-interface` profile to create a new virtual interface profile from an existing profile.

Example `set interface-address logical-item = 1`

Location `ETHERNET`
`ETHERNET-INFO`
`IP-INTERFACE`
`VLAN-ETHERNET`

interface-sparing-enabled

Description Specifies whether the interface (port) redundancy trap (notification) is to be sent to the identified host.

Usage Valid values are as follows:

- `yes`—Specifies that the interface (port) redundancy trap is sent to the identified host. This is the default.

- no—Specifies that the interface (port) redundancy trap is not sent to the identified host.

Example `set interface-sparing-enabled = yes`

Dependencies Only when this parameters is set to no can the SNMP agent in a Stinger unit report traps to an SNMP manager.

Location TRAP

interface-type

Description Specifies or indicates the mode of operation for an single-pair high-rate digital subscriber line (SHDSL)/high-rate digital subscriber line 2 (HDSL2) 32-port line interface module (LIM).

Usage Following are valid values:

- For the slot-static-config profile, specify one of the following values:
  - g-shdsl (default)—The LIM operates in SHDSL mode and supports symmetric data rates from 72Kbps to 2312Kbps.
  - hdsl2—The LIM operates in HDSL2 mode and supports symmetric data transfer at 1.544Mbps over a single twisted pair.
  - default—The default mode of operation of the LIM that is inserted into the slot. For the SHDSL/HDSL2 32-port LIM, the default is g-shdsl.
- For the hdsl2-stat or shdsl-stat profile, this parameter has the following read-only values:
  - g-shdsl—The LIM is operating in SHDSL mode.
  - hdsl2—The LIM is operating in HDSL2 mode.
  - default—The LIM is not a HDSL2/SHDSL LIM.
- For the transceiver-info profile, this parameter has the following read-only values which indicate the card type in the applicable slot:
  - interface-oc12—Indicates an OC12 card.
  - interface-none—Indicates no card is detected.
  - interface-oc3—Indicates an OC3 card.

Example `set interface-type = hdsl2`

Dependencies If this parameter is set to hdsl2, the rate-mode, min-rate, and max-rate parameters do not apply in the line-config subprofile of the hdsl2 profile.

Location HDSL2-STAT:physical-status
SHDSL-STAT:physical-status
SLOT-STATIC-CONFIG
TRUNK-DAUGHTER-DEV:transceiver-info

internal-fan-unit-failed

Description An alarm was received from the remote shelf fan to indicate a failure of the internal fan unit.

Usage This parameter is read-only. Valid values are as follows:

- `yes`—An alarm was received.
- `no` (the default)—No alarms were received.

Location `REMOTE-SHELF-STAT`

interval-auto-correction

Description Specifies the interval, in milliseconds, during which a line interface module (LIM) attempts autocorrection.

Some LIMs are capable of performing detection before correction. These LIMs attempt to detect the problem and then correct it.

Usage Specify a value from 0 to 2147483647. The default is 12000ms.

Example `set interval-auto-correction = 500000`

Location `SYSTEM-INTEGRITY:integrity-config`

inter-vrouter

Description Specifies the name of a virtual router (VRouter) to use as the route's next hop. All packets to the static route's destination network are sent to the specified virtual router for a routing decision.

Usage Specify the name of a defined virtual router. The default is null, which represents the global virtual router (the main IP router).

Example `set inter-vrouter = vrouter-1`

Dependencies The `gateway-address` parameter must be set to the zero address for this parameter to apply.

Location `IP-ROUTE`

intra-community

Description *Not used.* Specifies the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the intracommunity scope.

Usage Specify a number from 0 to 104. The default value is 48.

Example `set intra-community = 50`

Location `PNNI-NODE-CONFIG[`*n*`]:node-scope-mapping`

intra-organization

Description *Not used.* Specifies the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the intraorganization scope.

Usage Specify a number from 0 to 104. The default value is 64.

Example `set intra-organization = 75`

Location `PNNI-NODE-CONFIG[n]:node-scope-mapping`

intra-regional

Description *Not used.* Specifies the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the interregional scope.

Usage Specify a number from 0 to 104. The default value is 32.

Example `set intra-regional = 35`

Location `PNNI-NODE-CONFIG[n]:node-scope-mapping`

intra-site

Description *Not used.* Specifies the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the intrasite scope.

Usage Specify a number from 0 to 104. The default value is 80.

Example `set intra-site = 86`

Location `PNNI-NODE-CONFIG[n]:node-scope-mapping`

invalid-intervals

Description Read-only. Indicates the number of 15-minute intervals for which no valid data is available.

Usage The valid range for this read-only parameter is from 0 (zero) to 96.

Example `invalid-intervals = 0`

Location `DS1-ATM-STAT:ima-link-status`
`IMA-GROUP-STAT`

ip-address

Description Specifies or indicates an IP address, as follows:.

- In an `ip-interface` profile, the value is the IP address of a virtual IP or Ethernet interface.
- In the Domain Name System (DNS) local table definition in the `ip-global` profile, the value is a valid IP address for the `host-name` setting, or the zero address.

If `auto-update` is enabled and `ip-address` specifies the default zero address, successful DNS queries will gradually build the local table.

- In an `error` profile, the `ip-address` parameter is read-only and indicates the address or subnet from which an operator reset was requested.

Usage Specify an IP address in dotted decimal notation. The default is the null address (`0.0.0.0/0`).

In an `error` profile, the default is 0.0.0.0.

Example `set ip-address = 1.1.1.1/32`

Location `ERROR`
`IP-GLOBAL:dns-local-table:table-config[n]`
`IP-INTERFACE`

ip-direct

Description Specifies the IP address of a host to which the system directs all IP packets received across the link, without consulting the IP routing table.

Usage Specify an IP address in dotted decimal notation. The default is the null address (`0.0.0.0/0`).

Example `set ip-direct = 1.1.1.10/28`

Location `CONNECTION:ip-options`

ipport-cache-enable

Description *Not supported.* Enables or disables module-to-module IP packet forwarding based on the packet destination IP address and port. This setting is not used by the router module, which supports its own router subsystem.

Location `IP-GLOBAL`

iproute-cache-enable

Description *Not supported.* Enables or disables the route cache. This setting is not used by the router module, which supports its own router subsystem.

Location `IP-GLOBAL`

iproute-cache-size

Description *Not supported.* Specifies the size of the internal route cache. This setting is not used by the router module, which supports its own router subsystem.

Location `IP-GLOBAL`

ip-routing-enabled

Description Enables or disables IP routing for the interface.

IP routing is typically disabled in Asynchronous Transfer Mode (ATM) circuit configurations, and enabled in terminating connections or those that are switched internally for routing to the router module.

Usage Valid values are as follows:

- `yes` (the default)—Enables IP routing on the WAN interface.
- `no`—Disables IP routing on the interface.

Example `set ip-routing-enabled = no`

Location `CONNECTION:ip-options`

is-post

Description Read-only. Indicates whether the error specified in the `error` profile occurred during a power-on self test (POST).

Usage The `is-post` setting is read-only. Valid values are as follows:

- `yes`—Indicates that the error occurred during a POST.
- `no`—Indicates that the error did not occur during a POST.

Example `is-post = no`

Location `ERROR`

item-number

Description Specifies an item on a line interface module (LIM) or trunk module. I

Items are numbered starting with 1 for the topmost or leftmost item on the module. For example:

- In a Stinger FS, Stinger FS+, Stinger LS, or Stinger RT, line 48 on a LIM in slot 2 has the following address: `{ 1 2 48 }`.
- In a Stinger MRT, line 4 on a T1 trunk module has the following address: `{ 1 18 4 }`

Usage Specify a number from 0 to 65535. The default is 0 (zero), which denotes the entire slot.

Example `set item-number = 24`

Location `DEVICE-ADDRESS`
`PHYSICAL-ADDRESS`

j

join-prune-interval

Description Number of seconds between sending Protocol Independent Multicast (PIM) join/prune messages to PIM neighbors on this interface. A join/prune message consists of a list of groups and a list of joined and pruned sources for each group. The value must be less than that of the `join-prune-holdtime` parameter.

Note Stinger units do not currently support the (S,G) state, so it always sends (*,G) join/prune messages.

Usage The valid range is from 1 to 65535 with a default value of 60 seconds.

Example `set join-prune-interval = 30`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

join-prune-holdtime

Description Number of seconds a receiver of join/prune messages must consider the list valid before timing out the information. The value must be greater than that of the `join-prune-interval` parameter.

Usage The valid range is from 1 to 65535 with a default value of 210 seconds.

Example `set join-prune-holdtime = 180`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

K

key-id

Description Specifies a value used to encrypt the secret key when `authen-type` is set to `md5`.

Usage Specify a number from `0` through `255`. The default is `0` (zero).

Example `set key-id = 10`

Dependencies For `key-id` to apply, you must set `authen-type` to `md5`.

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`
`OSPF-VIRTUAL-LINK`

L

l2tp-auth-enabled

Description Enables or disables Layer 2 Tunneling Protocol (L2TP) tunnel authentication.

Usage Values are as follows:

- `yes`—Authenticates the L2TP network server (LNS) before passing calls to the system.
- `no` (the default)—Does not authenticate the LNS.

Example `set l2tp-auth-enabled = yes`

Dependencies If you are using RADIUS with L2TP, the RADIUS server must be able to encrypt the `tunnel-password` attribute.

Location `L2-TUNNEL-GLOBAL`

l2tp-enabled

Description Read-only. Indicates the status of the Layer 2 Tunneling Protocol (L2TP) feature.

Usage Read-only parameter with one of the following values:

- `no`—L2TP feature is not enabled.
- `yes`—L2TP feature is enabled.

Example `l2tp-enabled = yes`

Location `BASE`

l2tp-mode

Description Enables or disables Layer 2 Tunneling Protocol (L2TP) operations.

Usage Values are as follows:

- `lac`—Enables L2TP access concentrator (LAC) operations.
- `lns`—*Not supported.*
- `both`—*Not supported.*
- `disabled` (the default)—Disables L2TP functionality.

Example `set l2tp-mode = lac`

Location `L2-TUNNEL-GLOBAL`

l2tp-rx-window

Description Specifies the Layer 2 Tunneling Protocol (L2TP) receive window size to advertise for data channels.

Usage The valid range is from 0 to 63. The 0 (zero) default specifies that the L2TP access concentrator (LAC) requests no flow control for inbound L2TP payloads. A nonzero value enables behavior that predates RFC 2661.

Note Not all L2TP implementations support a nonzero value. Be careful to ensure that the L2TP network server (LNS) supports a nonzero value for this parameter before changing the default.

Example `set l2tp-rx-window = 63`

Location `L2-TUNNEL-GLOBAL`

l2tp-system-name

Description Specifies a name that can be sent to the Layer 2 Tunneling Protocol (L2TP) network server (LNS) during tunnel authentication.

Usage Enter a string of up to 31 characters. The default is null.

Example `set l2tp-system-name = lac-1`

Dependencies If you specify a value of more than 31 alphanumeric characters, the hostname passed to the L2TP end point is truncated and the plus (+) sign is appended to it.

Location `L2-TUNNEL-GLOBAL`

lac-incoming-call-timer

Description Specifies the number of seconds the system waits for an incoming session request to complete.

Usage Specify a number from 1 to 600. The default is 60.

Example `set lac-incoming-call-timer = 120`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

lan-delay

Description Number of milliseconds of expected propagation delay over the Ethernet interface.

Usage The valid range is from 1 to 65535 with a default value of 5000 milliseconds.

Example `set lan-delay = 1000`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

lan-delay-option

Description Whether the Stinger unit expects propagation delay over an Ethernet interface (`yes` or `no`, with a default value of `yes`).

Usage Valid values are as follows:

- `yes` (the default)—The Stinger unit expects propagation delay.
- `no`—The Stinger unit does not expect propagation delay.

Example `set lan-delay-option = no`

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

lasr

Description Specifies whether link addition and slow recovery (LASR) procedures are enabled or disabled.

Usage Valid values are as follows:

- `yes`—Specifies that LASR is enabled. This is the default.
- `no`—Specifies that LASR is disabled.

Example `set lasr = no`

Location `IMAGROUP`

last-32

Description Read-only. Indicates a 32-bit mask to track the last 32 times this device is tried.

Usage The `last-32` value is read-only. A 0 (zero) in the bit position indicates failure, while a 1 (one) indicates success. Numeric values range from 0 through 4294967295. The value 0 is the default.

Example `last-32 = 1028`

Location `DEVICE-STATE`

last-change-time

Description Read-only. The number of seconds or milliseconds that have lapsed since the inverse multiplexing over ATM (IMA) group last changed state.

Usage The `fast-change-time` value is read-only. Valid values range from zero to 2147483647.

Example `last-change-time = 1320`

Location `IMA-GROUP-STAT:ima-rt`

last-code-sync

Description Read-only. Indicates the time at which the controller in this context last synchronized its code repository with its partner.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `last-code-sync = 123`

Location `REDUNDANCY-STATS:context-stats`

last-login-date

Description Date when this user profile was last used to log into the system.

Usage This parameter is read-only.

Example `last-login-date = { Wednesday November 2003 12 }`

Location `USER`

last-log-recv

Description Read-only. Indicates the time at which the controller in this context last received a fatal log entry from its partner.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `last-log-recv = 123`

Location `REDUNDANCY-STATS:context-stats`

last-member-query-count

Description Specifies the number of group-specific queries sent before the multicast router assumes there are no local members.

Usage Specify an integer.

Example **`set last-member-query-count = 10`**

Location `CONNECTION:ip-options:igmp-options`

last-member-query-interval

Description Specifies the maximum response time (in tenths of a second) inserted into group-specific queries sent in response to Leave Group messages.

Usage Specify a number from 0 through 1024. You can reduce this value from its default of 1 second to reduce the time it takes to detect that the last member of a group has left.

Example `set last-member-query-interval = 10`

Dependencies The response time (the `last-member-query-interval` value divided by 10) must be less than the `query-interval` value.

Location `CONNECTION:ip-options:igmp-options`

last-profile-sync

Description Read-only. Indicates the time at which the controller in this context last synchronized its profile repository with its partner.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `last-profile-sync = 123`

Location `REDUNDANCY-STATS:context-stats`

last-reboot

Description Read-only. Indicates the reason the controller in this context was last rebooted.

Usage Read-only parameter with the following possible values:

- `crash`
- `local-report-local-error`
- `remote-report-local-error`
- `local-report-remote-error`
- `remote-report-remote-error`
- `local-manual-reboot`
- `remote-manual-reboot`
- `redundant-controller-switch-cmd`
- `number-of-reboot-types`
- `primary-operational-reboot`
- `secondary-operational-reboot`

Example `last-reboot = crash`

Location `REDUNDANCY-STATS:context-stats`

last-received

Description Read-only. Indicates the time at which the controller in this context last received a redundancy message.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `last-received = 123`

Location `REDUNDANCY-STATS:context-stats`

last-sent

Description Read-only. Indicates the time at which the controller in this context last got an acknowledgement (ACK) for a sent redundancy message.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `last-sent = 123`

Location `REDUNDANCY-STATS:context-stats`

last-switch-time

Description Read-only. A time stamp that indicates the time since the last switchover to the other channel in automatic protection switching (APS). The TAOS timestamp shows the number of ticks since December 1, 1990.

Usage Valid values for this read-only parameter range from 0 through 2147483647.

Example `last-switch-time = 3487821`

Location `APS-STAT`

leadership-priority

Description Specifies a number representing the leadership priority value that the node advertises to the peer group in a Private Network-to-Network Interface (PNNI).

Usage The default 0 (zero) value is required for nodes that are not peer group leader/logical group node (PGL/LGN) capable.

Example `set leadership-priority = 0`

Location `PNNI-NODE-CONFIG[`*n*`]:node-pgl`

least-delay-link

Description Read-only. Indicates the index of the link configured in the inverse multiplexing over ATM (IMA) group which has the smallest link propagation delay.

Usage Valid range is from 0 (zero) to 24. A value of zero is used if no link has been configured in the IMA group, or if the link with the smallest link propagation delay has not yet been determined.

Example `least-delay-link = 0`

Location `IMA-GROUP-STAT`

left-status

Description Specifies the default content of the left side of the status window.

Usage Valid values are as follows:

- `session-list`—Specifies that the Stinger unit displays current system administration sessions on the left side of the status window.
- `connection-list`—Specifies that the Stinger unit displays current system WAN sessions on the left side of the status window. This is the default.

Example `set left-status = session-list`

Location `USER`

len

Description Specifies the number of bytes to test in a packet, starting with the byte specified by the `offset` parameter. The packet data is compared to the `value` setting specified in the filter. The `mask` setting is assumed to have the same number of octets as the data specified by the `len` parameter.

Usage Specify a number from 0 to 8. The default is 0 (zero), which indicates that no packet data is tested.

Example `set len = 8`

In this generic filter specification, the filter applies the mask to the 8 bytes following the specified offset.

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `generic-filter`.

Location `FILTER:input-filters[`*n*`]:gen-filter`
`FILTER:output-filters[`*n*`]:gen-filter`

length

Description Specifies the number of bytes in a specified address. Length is used in a specific way in each profile or subprofile

Usage Valid values are as follows:

- In the `atm-addr-alias` profile—Number of bytes in the aliased address (from 0 to 22 bytes).
- In the `pnni-node-prefix` subprofile of the `atm-prefix` profile—Length in number of bytes of the prefix portion of the Private Network-to-Network Interface (PNNI) node address. By default, the prefix is 13 bytes, which is consistent with the DCC-AESA format. The valid range is from 1 to 13.

- In the `spvc-addr-prefix` subprofile of the `atm-prefix` profile—Length in number of bytes of the prefix portion of the soft permanent virtual circuit (SPVC) target address. With the default (0) zero setting, the value is taken from the `pnni-node-prefix` profile's `length` setting. The valid range is from 0 to 13.
- In the `svc-addr-prefix` subprofile of the `atm-prefix` profile—Length in number of bytes of the prefix portion of the switched virtual circuit (SVC) interface address. With the default zero setting, the value is taken from the `pnni-node-prefix` profile's `length` setting. The valid range is from 0 to 13.

Example The following command sets the aliased address length in the `atm-addr-alias` profile:

```
set length = 22
```

Location `ATM-ADDR-ALIAS`
`ATM-PREFIX:pnni-node-prefix`
`ATM-PREFIX:spvc-addr-prefix`
`ATM-PREFIX:svc-addr-prefix`

lim-sparing-enabled

Description Specifies whether the line interface module (LIM) redundancy trap (notification) is sent to the identified host.

Usage Valid values are as follows:

- `yes`—Specifies that LIM redundancy trap is sent to the identified host.
- `no`—Specifies that LIM redundancy trap is not sent to the identified host. This is the default.

Example `set lim-sparing-enabled = yes`

Dependencies Only when this parameters is set to `no` can the Stinger unit report traps to an SNMP agent.

Location `TRAP`

lim-status-ok

Description Read-only. Indicates the status of line interface module (LIM) redundancy for a given LIM.

Usage Valid values are as follows:

- `yes`—Indicates that the LIM redundancy for this port is properly working.
- `no`—Indicates that LIM redundancy for this port is not properly working.

Example `LIM-status-ok = no`

Location `LIM-SPARING-STATUS`

linear-protection-channel

Description Specifies the physical address of a protection channel in automatic protection switching (APS).

Usage Specify a valid physical address for a trunk port in terms of shelf, slot, and port. The value { `any-shelf any-slot 0` } is invalid.

Example `set linear-protection-channel = { 1 trunk-module-1 2 }`

Location `APS-CONFIG`

line-build-out

Description Specifies the line buildout value, in decibels, for connecting to channel service unit (CSU) devices.

Usage Valid values are as follows:

- `0-db`—This is the default.
- `7.5-db`
- `15-db`
- `22.55-db`

Dependencies For this setting to apply, you must set the Front-End-Type parameter to long-haul.

Example `set line-build-out = 15-db`

Location `DS1-ATM:line-config`

line-code

Description Specifies the discrete multitone (DMT) line code to be used for training.

Usage Valid values are as follows:

- `auto-select`—Enables automatic detection of the ADSL line coding. This is the default value for any line interface module (LIM) except the ADSL 48-port G.lite LIM.
- `ansi-dmt`—Sets the line code to the ANSI DMT standard. Use this value for optimum performance when configuring a 12-port LIM to ANSI DMT.
- `g.lite`—Sets the line code to the G.lite standard. The line code is automatically set to this value for the ADSL 48-port G.lite LIM.
- `g.dmt`—Sets the line code to the G.dmt standard.
- `legacy-mode`—For 24-port ADSL LIMs only. Allows training to legacy Alcatel devices such as the CopperCom MXR integrated access device (IAD) modem.
- `etsi-annex-b`—For Annex B ADSL LIMs only. Sets European Telecommunications Standards Institute (ETSI) mode. ETSI mode uses a single tone to initiate the startup sequence and fixes the location of bins for upstream and downstream rates.

Example `set line-code = auto-select`

Location `AL-DMT:line-config`

line-latency-down

Description Specifies the latency path for downstream data transport.

Usage Valid values are as follows. The default value is `interleave` for G.lite and `fast` for all other line codings.

- `fast`—Specifies noninterleaved channels.
- `interleave`—Specifies interleaved channels.

Example `set line-latency-down = fast`

Dependencies The `fast-path-config` subprofile values are not relevant to the 48-port line interface module (LIM) configuration because fast latency is not available for that configuration.

Location `AL-DMT:line-config`

line-latency-up

Description Specifies the latency path for upstream data transport.

Usage Valid values are as follows. The default value is `interleave` for G.lite and `fast` for all other line codings.

- `fast`—Specifies noninterleaved channels.
- `interleave`—Specifies interleaved channels.

Example `set line-latency-up = fast`

Dependencies The `fast-path-config` subprofile values are not relevant to the 48-port line interface module (LIM) configuration because fast latency is not available for that configuration.

Location `AL-DMT:line-config`

line-length

Description Specifies the length of the physical line in feet for connecting to short-haul digital cross-connect (DSX) devices.

Usage Valid values are as follows:

- `1-133`—Equivalent to 0.3m to 40.5m. This is the default.
- `134-266`—Equivalent to 40.8m to 81.1m.
- `267-399`—Equivalent to 81.4m to 121.6m.
- `400-533`—Equivalent to 121.9m to 162.5m.
- `534-655`—Equivalent to 162.8m to 199.6m.

Dependencies This parameter replaces the `max-cable-loss` parameter in the `ds1-atm` profile. While the `line-length` and `max-cable-loss` parameters have the same valid values, you must reapply the value set in the `max-cable-loss` parameter to the `line-length` parameter for the setting to apply.

Note This parameter does not apply if the `front-end-type` parameter is set to `long-haul`.

Example `set line-length = 1-133`

Location `DS1-ATM:line-config`

line-mode

Description Depending on the profile, indicates or specifies the mode in which this line is operating.

Usage Valid values are as follows:

- In the `ds1-atm-stat` profile, the following values are read-only:
  - `uni`—Indicates that the link operates in User-to-Network-Interface (UNI) mode.
  - `ima`—Indicates that the link operates in inverse multiplexing over ATM (IMA) mode.
- In the `line-config` subprofile of the `sdsl` profile, specify one of the following values:
  - `atm`—Specifies that the line operates in Asynchronous Transfer Mode (ATM).
  - `hdlc`—Specifies that the line operates in High-Level Data Link Control (HDLC) serial mode.

Example Use the following examples to help you read or set `line-mode`:

- In the following example, the DS1 line mode is in UNI mode:

  `line-mode = uni`

- The following command sets an SDSL line to run in HDLC serial mode:

  `set line-mode = hdlc`

Location `DS1-ATM-STAT`
`SDSL:line-config`

line-quality

Description Read-only. Indicates the line quality (in decibels). For an SDSL interface, a reading of -5dB or better is required for reliable data transfer.

Usage The `line-quality` setting is read-only.

Example `line-quality = 15`

Location `HDSL2-STAT:physical-statistic`
`SDSL-STAT:physical-statistic`
`SHDSL-STAT:physical-statistic`

line-rate

Description Read-only. Indicates the maximum data rate for this port.

Usage The line-rate setting is read-only.

Example line-rate = 148598

Location HIGH-SPEED-SLOT-STATIC-CONFIG:trunk-cac-config

Note This parameter was previously located in the atm-config profile. Its use in that location has been deprecated.

line-state

Description Read-only. Indicates the overall state of a line.

Usage The line-state setting is read-only. You cannot set line-state directly. For a RADSL or an ADSL line, line-state can have one of the following values:

Value	Indicates
disabled	Line is disabled.
active	Line is enabled and operating normally.

For an SDSL, HDSL2, or an SHDSL line, line-state can have one of the following values:

Value	Indicates
does-not-exist	Line is not installed.
disabled	Line is disabled.
active	Line is enabled and operating normally.

For an IDSL line, line-state can have one of the following values:

Value	Indicates
disabled	Line is disabled.
no-physical	No physical link exists.
point-to-point	Point-to-point link is established.

For a DS3-ATM or an OC3-ATM line, `line-state` can have one of the following values:

Value	Indicates
`does-not-exist`	No link is established.
`disabled`	Line is disabled.
`loss-of-signal`	Red Alarm state has occurred, which indicates a near-end loss of signal.
`loss-of-frame`	Framing error has occurred on the near end.
`yellow-alarm`	Device on the line is detecting framing errors in the signal, which indicates a far-end loss of frame.
`ais-receive`	Line is receiving a keepalive signal.
`active`	Line is enabled.

Example `line-state = active`

Location `AL-DMT-STAT`
`ATM-INTERNAL-STAT`
`DS1-ATM-STAT`
`DS3-ATM-STAT`
`E3-ATM-STAT`
`HDSL2-STAT`
`IDSL-STAT`
`OC3-ATM-STAT`
`SDSL-STAT`
`SHDSL-STAT`

line-up-timer

Description Read-only. Indicates the length of time the line has been in the UP state.

Usage The `line-up-timer` value is read-only. It has the following format:

{*hh mm ss*}

- *hh*—Indicates the number of hours.
- *mm*—Indicates the number of minutes.
- *ss*—Indicates the number of seconds.

Location `AL-DMT-STAT:physical-statistic`
`HDSL2-STAT:physical-statistic`
`IDSL-STAT:physical-statistic`
`SDSL-STAT:physical-statistic`
`SHDSL-STAT:physical-statistic`

link-compression

Description Specifies the link-compression method for Point-to-Point Protocol (PPP)-encapsulated packets transmitted and received on the connection.

Usage Valid values are the following:

- `none`—Does not use link compression. This value is the default in the `answer-defaults` profile.
- `stac`—Uses a modified version of draft 0 of the Compression Control Protocol (CCP), which predates RFC 1974. This modified version is supported by older equipment. This value is the default in `connection` profiles.
- `stac-9` —Uses draft 9 of the Stac LZS compression protocol, which is described in RFC 1974. Most devices use this compression method.
- `ms-stac`—Uses Microsoft/Stac compression (the method used by Windows 95). If the caller does not acknowledge Microsoft/Stac compression, the Stinger unit attempts to use standard `stac` compression. If the caller does not acknowledge `stac` compression, the link uses no compression.
- `mppc`—Uses Microsoft Point-to-Point Compression (MPPC).

Example `set link-compression = stac-9`

Dependencies Both sides of the connection must support the same type of link compression. Otherwise, this setting has no effect.

Location `ANSWER-DEFAULTS:ppp-answer`
`CONNECTION:ppp-options`

linkdown-enabled

Description Specifies whether the system generates a trap when a failure occurs in a communication link between the unit and the SNMP manager.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when a failure occurs in a communication link between the unit and the SNMP manager. This is the default.
- `no`—Specifies that the system does not generate a trap when a failure occurs in a communication link between the unit and the SNMP manager.

Example `set linkdown-enabled = no`

Location `TRAP`

link-mgmt

Description Specifies the link management protocol between the Stinger unit and the frame relay switch. The frame relay administrator or service provider can tell you which value to use.

Note To ensure interoperability with equipment from different vendors, the same version of management protocol must be used at each end of the frame relay link.

Usage Valid values are as follows:

- `none`—Specifies no link management. The Stinger unit assumes that the physical link is enabled and that all Data Link Connection Indicators (DLCIs) are active on the physical link. This is the default.
- `ANSI-T1.617d`—Specifies the link management protocol defined in ANSI T1.617 Annex D.
- `CCITT-Q.933a`—Specifies the link management protocol defined Q.933 Annex A.

Example `set link-mgmt = ansi-t1.617d`

Location `FRAME-RELAY`

link-mgmt-dlci

Description Specifies the data link connection identifier (DLCI) to use for link management on the frame relay data link.

Usage Specify one of the following settings:

- `dlci0` (the default)—Specifies DLCI 0.
- `dlci1023`—Specifies DLCI 1023.

Example `set link-mgmt-dlci = dlci1023`

Dependencies When switched virtual circuit (SVC) signaling is enabled, `link-mgmt-dlci` must be set to its default value of `dlci0`.

Location `FRAME-RELAY`

link-recovery-type

Description Specifies the type of link recovery.

Usage Valid values are as follows:

- `manual`—Link recovery type is manual.
- `slow`—Link recovery type is slow.
- `fast` (the default)—Link recovery type is fast.

Example `set link-recovery-type = slow`

Location `DS1-ATM:line-config:ima-option-config:rxlink-config`
`DS1-ATM:line-config:ima-option-config:txlink-config`

link-state

Description Read-only. Indicates the physical state of the LAN interface.

Usage The `link-state` setting is read-only. The value can be set by the Ethernet driver only.

- `up`—Indicates that the LAN interface can transmit and receive network traffic.
- `down`—Indicates that the LAN interface cannot transmit and receive network traffic (for example, if the Ethernet cable is unplugged or the Ethernet hub on the interface is not operating).
- `unknown`—Indicates an Ethernet interface on the control module.

Example `link-state = up`

Location `ETHER-INFO`

link-state-enabled

Description Specifies whether the link state of the Ethernet interface affects the system's IP routing tables.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit deletes routes to an interface when the interface is unavailable, and then restore the routes when the interface becomes available again.
- `no` (the default)—Specifies that the Stinger unit does not choose an alternate route if the interface is unavailable. (Packets are discarded.)

Example `set link-state-enabled = yes`

Location `ETHERNET`

link-type

Description Specifies the kind of logical interface between the Stinger unit and the frame relay network on the data link:

- Data circuit-terminating equipment (DCE) is a device that connects the data terminal equipment (DTE) to a communications channel, such as a telephone line.
- Data terminal equipment (DTE) is a device that an operator uses, such as a computer or a terminal.
- Network-to-Network Interface (NNI) operation allows the Stinger unit to act as a frame relay switch communicating with another frame relay switch.

Usage Valid values are as follows:

- `dce`—Specifies a UNI-DCE connection. The Stinger unit operates as the network side, communicating with the user side (UNI-DTE) of a frame relay terminating unit.
- `dte`—Specifies a UNI-DTE connection. The Stinger unit operates as the user side, communicating with the network-side DCE switch. This is the default.

- nni—Specifies an NNI connection. The Stinger unit performs both DTE and DCE link management.

Example `set link-type = dce`

Location FRAME-RELAY

linkup-enabled

Description Specifies whether the system generates a trap (notification) when the communication link between the unit and the SNMP manager is reestablished.

Usage Valid values are as follows:

- yes—Specifies that the system generates a trap when the communication link between the unit and the SNMP manager is reestablished. This is the default.
- no—Specifies that the system does not generate a trap when the communication link between the unit and the SNMP manager is reestablished.

Example `set linkup-enabled = no`

Location TRAP

load-end

Description Read-only. Indicates the time at which the controller in this context detected that the other controller completed loading the operational code.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `load-end = 123`

Location REDUNDANCY-STATS:context-stats

loadname

Description Read-only. Indicates the name of the software load that was running on a slot that failed.

Usage The loadname setting is read-only.

Example `loadname = load1`

Location ERROR

load-start

Description Read-only. Indicates the time at which the controller in this context started waiting for the other controller to load the operational code.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Location REDUNDANCY-STATS:context-stats

local

Description Read-only. Indicates the identity and reboot statistics for the controller in this context.

Usage Read-only, complex field.

Example `local = { 10486893 }`

Location `REDUNDANCY-STATS:context-stats`

local-address

Description Specifies an IP address assigned to the local side of a numbered-interface connection. The Stinger unit uses this value to match the address presented by an incoming IP connection.

Bridged IP routing (BIR) configurations require numbered interfaces, for which the remote and local side of the connection are each assigned a unique IP address. Typically, the local address for the Stinger unit is a unique address on the remote subnet.

Usage Specify an IP address. The default is the null address (0.0.0.0/0).

Example `set local-address = 1.2.3.4/32`

Dependencies A numbered interface is required when BootP packets come from an interface that is not point-to-point.

Location `CONNECTION:ip-options`

local-echo

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration:telnet-options`

local-net

Description *Not used.* Read-only. Indicates the local-net number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the local network scope.

Usage The `local-net` value is read-only. Valid values range from 0 to 104. The default value is 96.

Example `local-net = 96`

Location `PNNNI-NODE-CONFIG[`*n*`]:node-scope-mapping`

local-net-plus-1

Description *Not used.* Indicates the local-net number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the local network plus 1 scope.

Usage The `local-net-plus-1` value is read-only. Valid values range from 0 to 104. The default value is 96.

Example `local-net-plus-1 = 96`

Usage `PNNNI-NODE-CONFIG[n]:node-scope-mapping`

local-net-plus-2

Description *Not used.* Indicates the local-net number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the local network plus 2 scope.

Usage The `local-net-plus-2` value is read-only. Valid values range from 0 to 104. The default value is 96.

Example `local-net-plus-2 = 96`

Location `PNNNI-NODE-CONFIG[n]:node-scope-mapping`

local-profiles-first

Description Specifies whether the Stinger unit attempts local authentication before remote external authentication.

Usage Specify one of the following settings:

- `lpf-yes` (the default)—Specifies that the Stinger unit first attempts to authenticate the connection with a local profile. If the profile exists and the password matches, the Stinger unit allows the connection. If no local profile exists or if a local profile exists but the password fails, the Stinger unit tries to authenticate the connection through an external authentication server.
- `lpf-no`—Specifies that the Stinger unit first tries to authenticate the connection through a remote authentication server. If the server acknowledges the request, it allows the connection. If the server does not acknowledge (NAKs) the request and remote authentication fails (because no remote profile exists, or a remote profile exists but the password fails), or if the remote authentication server cannot be reached, the Stinger unit attempts to authenticate the connection with a local profile.
- `lpf-rno`—Specifies that the Stinger unit first tries to authenticate the connection through a remote authentication server. If the profile exists and the password matches, the Stinger unit allows the connection. If the server does not respond, the Stinger unit checks for a matching local profile. If the server does not acknowledge (NAKs) the request and remote authentication fails, the Stinger unit terminates the connection.

Example `set local-profiles-first = lpf-no`

Dependencies Consider the following:

- If `auth-type` is set to `none`, `local-profiles-first` does not apply.
- PAP-Token authentication does not produce a challenge with a local profile. Using a local profile defeats the security of using PAP-Token.
- When you use a local profile, PAP-Token-CHAP brings up one channel, but all other channels fail.
- If the remote end of the connection has ever been authenticated with a challenge, Cache-Token does not work with a local profile. If the remote end has never been authenticated, no problem occurs when using a local profile.
- When you set `local-profiles-first` to `lpf-no`, the Stinger unit waits for the remote authentication to time out before attempting to authenticate locally. This time-out might take longer than the time-out specified for the connection and could cause all connection attempts to fail. Therefore, set the authentication time-out value low enough to guard against the line becoming unavailable, but high enough to permit the unit to respond if it can. The recommended time is 3 seconds.

Location `EXTERNAL-AUTH`

location

Description Specifies the physical location of the Stinger unit or remote shelf. An SNMP manager can both read and set the `location` value in an `SNMP` profile.

Usage Specify text describing where the Stinger unit or remote shelf is located. You can enter up to 80 characters for a Stinger unit or 83 characters for a remote shelf. The default is null.

Example `set location = building-64`

Location `SNMP`
`REMOTE-SHELF-CONFIG`

log-call-progress

Description Specifies whether the unit logs incoming call-progress messages.

Usage Valid values are as follows:

- `yes`—Specifies that the unit logs incoming call-progress messages. This is the default.
- `no`—Specifies that the unit discards incoming call-progress messages.

Example `set log-call-progress = no`

Location `LOG`

log-date

Description Date the command log was generated. This parameter reports date in the format { *Weekday Month Year Date* }.

Usage This parameter is read-only.

Example `log-date = { Friday November 2003 7 }`

Location `cmd-log`

log-display-level

Description Specifies the lowest level of the log messages that the Stinger unit displays to a logged-in user.

Note Do not confuse `log-display-level` with `save-level` in the `log` profile. The `save-level` parameter determines which messages are displayed in the event-log status window.

Usage The following levels are arranged from the highest—starting with `emergency`—to the lowest, `debug`. Specify a level as the lowest level setting. The level you specify and all levels above that setting are displayed. For example, if `critical` is the lowest setting, only `critical`, `alert`, and `emergency` level log messages are displayed.

- `none` (the default)—The Stinger unit does not display log messages.
- `emergency`—The unit has an error condition and is unlikely to be operating normally.
- `alert`—The unit has an error condition but is still operating normally.
- `critical`—An interface has failed, or a security error has occurred.
- `error`—An error event has occurred.
- `warning`—An unusual event has occurred, but the unit is otherwise operating normally. For example, this type of message appears when a login attempt has failed because the user entered an incorrect username or password.
- `notice`—Events of interest in normal operation have occurred (a link becoming enabled or disabled, for example).
- `info`—State and status changes that are commonly not of general interest have occurred.
- `debug`—Helpful debugging information.

Example `set log-display-level = debug`

Location `USER`

logical-item

Description Specifies a number that assigns an addressable logical entity within the context of a physical address.

Usage Specify a number from 0 (zero) to 2147483647.

Example `set logical-item = 0`

Location `CALL-ROUTE:preferred-source`
`CALL-ROUTE:index`
`REMOTE-SHELF-STAT:host-port`

login-level

Description Login level for a `user` profile.

Usage Specify one of the following values:

- `first-level` (the default)—This `user` profile is to be used for first level authentication.
- `second-level`—This `user` profile is to be used for second level authentication. If the `login-level` parameter is set to `second-level`, you must specify the name of a valid first-level `user` profile for the `first-level-user` parameter.

Example `set login-level = second-level`

Location `USER`

login-prompt

Description *Not used.*

login-source

Description Method used to initiate the user session.

Usage This parameter is read-only.

Example `login-source = console`

Location `cmd-log`

login-timeout

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

log-software-version

Description Specifies whether the Stinger unit logs the system version number.

Usage Valid values are as follows:

- `yes`(the default)—The system version number is logged.
- `no` —The system number is not logged.

Example `set log-software-version = yes`

Location LOG

log-time

Description Time the command was entered, in the format { *Hour Minute Second* }.

Usage This parameter is read-only.

Example log-time = { 6 58 12 }

Location cmd-log

loop-attenuation

Description Read-only. Indicates current diminution (attenuation) in the loop, in decibels (dB).

Usage This value is read-only.

Example loop-attenuation = 10

Location HDSL2-STAT:physical-statistic
SHDSL-STAT:physical-statistic

loopback

Description Specifies whether to run a loopback test on the interface. While the interface is looped back, normal data traffic is interrupted.

Usage Valid values are as follows:

- no-loopback (the default)—Specifies that no loopback test is run.
- facility-loopback—Specifies that during a facility loopback, the interface returns the signal it receives on the line.
- local-loopback—Specifies that during a local loopback, the interface's receive path is connected to the interface's transmit path. The transmitted signal is still sent to the network as well.
- atm-layer-loopback—Specifies that during an ATM layer loopback test, cells are looped from the input of the ATM framer to its output.

Example set loopback = local-loopback

Location DS1-ATM:line-config
DS3-ATM:line-config
E3-ATM:line-confi
OC3-ATM:line-config

loop-back

Description Specifies whether the line passes normal data or is in loopback mode.

Usage Valid values are as follows:

- `none` (the default)—Specifies that no loopback test is run.
- `analog`—Specifies that the line is enabled for analog loopback tests. Terminating the DSL line with a 100-ohm resistor might be required.
- `digital`—Specifies that the line is enabled for digital loopback tests.

Example `set loop-back = digital`

Location `AL-DMT:line-config`
`HDSL2 :line-config`
`SDSL:line-config`
`SHDSL:line-config`

loopback-cells-per-test

Description Specifies the number of loopback-per-test cells to be sent on each ATM circuit to be tested.

Usage Specify a number from 1 through 10. The default is 1. The time interval between transmission of each loopback cell is 1 second.

Example `set loopback-cells-per-test = 5`

Location `ATM-OAM:loopback-config`

loopback-level

Description Specifies the type of loopback test.

Usage Specify one of the following values:

- `end-to-end`—Specifies testing at the end-to-end level.
- `segment` (the default)—Specifies testing at the segment level.

Example `set loopback-level = end-to-end`

Location `ATM-OAM:loopback-config`

loop-resistance

Description Read-only. Indicates the resistance, in ohms, registered in the loop during a copper loop test (CLT).

Usage The `loop-resistance` value is read-only.

Example `loop-resistance = 0`

Location `CLT-RESULT`

loop-resistance-length-1

Description Read-only. Indicates the estimated length of resistance for 22 American wire gauge (AWG) or 0.644mm cable size.

Usage The `loop-resistance-length-1` value is read-only. Valid values are as follows:

- If units are set to `english`, `length-1` is the estimated length in hundreths of a foot (0.01) based on 22 AWG cable size.
- If units are set to `metric`, `length-1` is the estimated length in centimeters based on a 0.644mm cable size.

Example `loop-resistance-length-1 = 0`

Location `CLT-RESULT`

loop-resistance-length-2

Description Read-only. Indicates the estimated length of resistance for 24 American wire gauge (AWG) or 0.511mm cable size.

Usage The `loop-resistance-length-2` value is read-only. Valid values are as follows:

- If units are set to `english`, `length-2` is the estimated length in hundreths of a foot (0.01) based on 24 AWG cable.
- If units are set to `metric`, `length-2` is the estimated length in centimeters based on 0.511mm cable size.

Example `loop-resistance-length-2 = 0`

Location `CLT-RESULT`

loop-resistance-length-3

Description Read-only. Indicates the estimated length of resistance for 26 American wire gauge (AWG) or 0.405mm cable size.

Usage The `loop-resistance-length-3` value is read-only. Valid values are as follows:

- If units are set to `english`, `length-3` is the estimated length in hundreths of a foot (0.01) based on 26 AWG cable size.
- If units are set to `metric`, `length-3` is the estimated length in centimeters based on 0.405mm cable size.

Example `loop-resistance-length-3 = 0`

Location `CLT-RESULT`

loop-resistance-temp

Description Specifies the temperature of loop in a copper loop test (CLT).

Usage Specify a number according to the `loop-resistance-unit` value specified. Valid values are as follows:

- If `loop-resistance-unit` is `english`, specify a value in the range 0 to 100 degrees F.
- If `loop-resistance-unit` is `metric`, specify a value in the range -178 to 93.3 degrees C in tenths (0.1) of a degree.

Example `set loop-resistance-temp = 80`

Dependencies The `loop-resistance-unit` parameter must specify the type of units of measurement.

Location `CLT-COMMAND`

loop-resistance-unit

Description Specifies the unit of measurement for the for loop resistance test in a copper loop test (CLT).

Usage Valid values are as follows:

- `english`—Uses English units for test parameters.
- `metric` (the default)—Uses metric units for test parameters.

Example `set loop-resistance-unit = metric`

Dependencies The `loop-resistance-temp` parameter must specify the temperature.

Location `CLT-COMMAND`

loop-timing

Description Sets the source for transmission (TX) timing.

Usage Valid values are as follows:

- `yes`—Specifies that the TX timing for all the trunk ports, including this port, are derived from the receiver inputs of the port.
- `no`—Specifies that the TX timing is derived from the reference clock. This is the default.

Example `set loop-timing = yes`

Location `OC3-ATM:line-config`

loss-detect-interval

Description Specifies the number of seconds between successive transmissions of Integrated Local Management Interface (ILMI) messages on this interface for the purpose of detecting loss of ILMI connectivity. *ILMI is not supported with the current software version.*

Usage Specify a value of from 0 to 65536 seconds. The default value is 5.

Example `set loss-detect-interval = 25`

Dependencies If this parameter is set to 0, ILMI connectivity procedures are disabled on the interface.

Location `ATM-IF-CONFIG:extension-config`

loss-of-carrier

Description Read-only. Indicates a loss of carrier on the DS1 ATM line.

Usage Valid values are as follows:

- `false`—Indicates no loss of carrier.
- `true`—Indicates a loss of carrier.

Example `loss-of-carrier = false`

Location `DS1-ATM-STAT`
`T1-STAT`

loss-of-cell-delineation

Description Read-only. Indicates whether a header error control (HEC) check failed on the line.

Usage The `loss-of-cell-delineation` setting is read-only. Valid values are as follows:

- `true`—Indicates that an HEC check failed.
- `false`—Indicates that the line passed an HEC check.

Example `loss-of-cell-delineation = false`

Location `OC3-ATM-STAT`

loss-of-frame

Description Read-only. Indicates whether a framing error has occurred on the line (also known as a *red alarm*).

Usage The Loss-Of-Frame value is read-only. Valid values are as follows:

- `true`—Indicates that a framing error has occurred on the line.
- `false`—Indicates that the line is operational and in frame.

Example `loss-of-frame = false`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`

loss-of-signal

Description Read-only. Indicates whether the carrier is maintaining a connection or not.

Usage The `loss-of-signal` value is read-only. Valid values are as follows:

- `true`—Indicates that the carrier is not maintaining a connection.
- `false`—Indicates that the carrier is maintaining a connection.

Example `loss-of-signal = false`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`

loss-of-sync

Description Read-only. Indicates a loss of synchronization on the DS1 ATM line.

Usage Valid values for this read-only parameter are as follows:

- `true`—Indicates a loss of synchronization.
- `false`—Indicates no loss is indicated.

Example `loss-of-sync = false`

Location `DS1-ATM-STAT`
`T1-STAT`

losw-second

Description Read-only. Indicates the number of 1-second intervals during which one or more HDSL2 loss-of-synchronous-word (LOSW) defects are declared.

Usage The `losw-second` value is read-only.

Example `losw-second = 1`

Location `HDSL2-STAT: physical-statistic`
`SHDSL-STAT: physical-statistic`

low-priority-weight

Description Sets the weight of this queue on the low-priority scheduler.

The relative weight determines how much of the scheduler's work cycle this queue can receive relative to other queues on the same scheduler.

Usage Specify a value in the range 0 to 15. The total weight per scheduler must be less than or equal to 128. The high-priority weight or low-priority weight must be nonzero if the queue is active.

Example `set low-priority-weight = 0`

Location `SWITCH-CONFIG:atm-parameters:outgoing-queue`

lqm

Description Specifies whether the Stinger unit requests link-quality monitoring (LQM) when answering a PPP session request.

Link-quality monitoring counts the number of packets sent across the link and periodically queries the remote end about how many packets it has received. Discrepancies are evidence of packet loss and indicate link-quality problems. Link-quality monitoring also generates periodic link-quality reports, and the two ends of the link exchange the reports.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—Requests link-quality monitoring.
- `no`—Does not request link-quality monitoring.

Example `set lqm = yes`

Location `ANSWER-DEFAULTS:ppp-answer`
`CONNECTION:ppp-options`

lqm-maximum-period

Description Specifies the maximum period, in hundredths of a second, during which the Stinger unit can accept and send link-quality monitoring (LQM) packets when answering a PPP session request.

Usage Specify a number from 0 to 600. The default is 600.

Example `set lqm-maximum-period = 300`

Dependencies This setting does not apply if `lqm` is set to `no`.

Location `ANSWER-DEFAULTS:ppp-answer`
`CONNECTION:ppp-options`

lqm-minimum-period

Description Specifies the minimum period, in hundredths of a second, during which the Stinger unit can accept link-quality monitoring (LQM) packets when answering a PPP session request.

Usage Specify a number from 0 to 600. The default is 600.

Example `set lqm-minimum-period = 200`

Dependencies This setting does not apply if `lqm` is set to `no`.

Location ANSWER-DEFAULTS:ppp-answer
CONNECTION:ppp-options

M

mac-address

Description Specifies the media access control (MAC) address of an Ethernet interface.

An Ethernet MAC address is a 12-digit hexadecimal number denoting the physical address encoded in the controller.

Usage In most cases, the mac-address value is obtained from the system. However, you can clone a profile by reading an existing one and changing its physical address.

Example **set mac-address = 00:c0:6c:4e:ac:5a**

Location ETHER-INFO

magic-key

Description Read-only. *Parameter for internal use only.*

Usage The magic-key value is read-only.

Example magic-key = 358

Location ATMVCC-STAT

magic-keys

Description Read-only. *Parameter for internal use only.*

Usage The magic-key array values are read-only.

Example magic-keys[1] = 16777313
magic-keys[2] = 16777313

Location ATMPVC-STAT

major-firmware-ver

Description Read-only. Indicates the major firmware version of the SDSL line interface module (LIM).

Usage The major-firmware-ver value is read-only.

Location SDSL-STAT:physical-status

management-only-interface

Description Enables or disables management-only on the IP interface.

On a management-only interface, incoming traffic on the interface terminates in the system itself, and is not forwarded on any other interface. In addition, only traffic generated by the system is forwarded on the management-only interface. Traffic generated externally is dropped on the interface.

Usage Valid values are as follows:

- `yes`—Terminates all incoming traffic received on the interface in the system itself, and transmit only traffic generated by the system itself.
- no (the default)—Processes inbound and outbound traffic normally on the interface.

Example `set management-only-interface = yes`

Location `IP-INTERFACE`

manually-spared-slot-number

Description Specifies the slot number of the primary line interface module (LIM) associated with the spare LIM specified by the `spare-slot-number` parameter.

Usage Specify an integer. The default is `any-slot`.

Example `set manually-spared-slot-number = 2`

Dependencies The `manually-spared-slot-number` setting does not apply if sparing-mode is set to `inactive`.

Location `LIM-SPARING-CONFIG`

margin

Description Specifies the noise margin value (in decibels) in the configuration of an HDSL2 or SHDSL line.

Usage Specify a value from 0dB to 10dB, considering the following:

- Specifying a value *less than 6dB* causes modems to train at higher rates, but on noisy loops, modems might become unstable and retrain.
- Specifying a value *greater than 6dB* causes the modems to train at lower rates, but the modems are more stable and are less likely to retrain on noisy loops.

Example `set margin = 10db`

Dependencies This parameter applies only if the `interface-type` parameter is set to `g-shdsl` and the `rate-mode` parameter is set to `auto-mode`.

Location `HDSL2:line-config`
`SHDSL:line-config`

marking-type

Description Enables or disables marking of packets to provide information for other network elements in a network domain using differentiated services code points (DSCPs).

Changing the value of this setting in a `connection` profile takes effect for new connections when the profile is written.

Usage Valid values are as follows:

- `precedence-tos` (the default)—Marks packets in a manner consistent with RFC 791, in which the first 6 bits in the second octet indicate the precedence and type of service (TOS) of the packet, as specified in the `precedence` and `type-of-service` settings.
- `dscp`—Marks packets as specified in RFC 2474, making use of the DSCP value specified in the `dscp` parameter.

Example `set marking-type = dscp`

Dependencies For this setting to apply, TOS and IP routing must be enabled in the `connection` profile, or TOS must be specified as the filter type in the `filter` profile.

Location `CONNECTION:ip-options:tos-options`
`FILTER:input-filters[`*n*`]:tos-filter`
`FILTER:output-filters[`*n*`]:tos-filter`

mask

Description Specifies a binary mask. The system applies the 12-byte mask to the `value` setting before comparing it to the packet data.

You can use the mask to specify exactly which bits you want to compare. The system translates both the mask and the value specified by the `value` parameter into binary format and then applies a logical AND operation to the results. Each binary 0 (zero) in the mask hides the bit in the corresponding position in the value. A mask of all ones (FF:FF:FF:FF:FF:FF:FF:FF) masks no bits, so the full specified value must match the packet contents.

Usage Specify a hexadecimal number of up to 12 bytes. The default is 000000000000.

Example `set mask = 0f:ff:ff:ff:00:00:00:f0:00:00:00:00`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `generic-filter`.

Location `FILTER:input-filters[`*n*`]:gen-filter`
`FILTER:output-filters[`*n*`]:gen-filter`

master-binding-port

Description Specifies whether an SHDSL port is configured for binding to the next adjacent port. Binding two SHDSL ports together aggregates their bandwidths together.

Usage Binding is enabled by configuring an odd numbered port as master. The next even numbered port is bound to the master port.

Specify one of the following values for master-binding-port parameter:

- `no`—Do not set the port to master binding port.
- `yes`—Set the port to master binding port.

Dependencies The `rate-mode` parameter must be set to `fixed`. The `enabled` parameter must be set to `yes` for both ports. The master port's `max-rate` and `rate-mode` parameter values are used for both ports.

Note The `master-binding-port` parameter is not active in the `hdsl2:line-config` profile.

Location `HDSL2:line-config`
`SHDSL:line-config`

match-method

Description Specifies how the context name specified in the incoming or outgoing protocol data unit (PDU) is to be matched to the value specified in the `context-prefix` parameter in the `access-properties` subprofile.

Usage Valid values are as follows:

- `exact-match` (the default)—Specifies that the entire context name specified in the incoming or outgoing PDU is to be matched to the value specified in the `context-prefix` parameter.
- `prefix-match`—Specifies that only the prefix of the context name specified in the incoming or outgoing PDU is to be matched.

Example `set match-method = prefix-match`

Location `VACM-ACCESS`

max-active-vci-bits

Description Read-only. Indicates the maximum number of active virtual channel identifier (VCI) bits configured for use at this Asynchronous Transfer Mode (ATM) interface.

Usage This parameter is read-only.

Example `max-active-vci-bits = 13`

Location `ATM-IF-CONFIG:base-config`

max-active-vpi-bits

Description Read-only. Indicates the maximum number of virtual path identifier (VPI) bits in virtual path identifier-virtual channel identifier (VPI-VCI) pairs on the asynchronous transfer mode ATM interface.

Usage This parameter is read-only.

Example `max-active-vpi-bits = 8`

Location `ATM-IF-CONFIG:base-config`

max-add-noise-margin-down

Description Specifies the maximum downstream noise margin, in decibels beyond the `target-noise-margin-down` value, that the line tolerates relative to 0dB before attempting to reduce power output.

Usage Specify an integer from 0dB to 31dB. The default is 31dB for 12-port line interface modules (LIMs) and 30dB for 48-port LIMs.

For a system with typical noise patterns, set the `max-add-noise-margin-down` parameter to a value close to 8. For a system with greater noise patterns, you can set a higher value.

Example `set max-add-noise-margin-down = 15`

Dependencies Consider the following:

- You cannot set the `max-add-noise-margin-down` parameter to a value that is less than that of the `target-noise-margin-down` parameter.
- The modem software limits the maximum noise margin to 15dB. If you specify a setting greater than 15, the modem software uses 15dB.
- This parameter is not used for and has no effect on 24-port ADSL LIMS.

Location `AL-DMT:margin-config`

max-add-noise-margin-up

Description Specifies the maximum upstream noise margin, in decibels beyond the `target-noise-margin-up` value, that the line tolerates relative to 0dB before attempting to reduce power output.

Usage Specify an integer from 0 to 31dB. The default is 31dB for 12-port line interface modules (LIMs) and 30dB for 48-port LIMs.

Example `set max-add-noise-margin-up = 15`

Dependencies Consider the following:

- You cannot set the `max-add-noise-margin-up` parameter to a value that is less than that of `target-noise-margin-up.`
- The modem software limits the maximum noise margin to 15dB. If you specify a setting greater than 15, the modem software uses 15dB.

- This parameter is not used for and has no effect on 24-port ADSL LIMS.

Location AL-DMT:margin-config

max-aggr-power-level-down

Description Specifies the maximum aggregate power level on the downstream channel on the designated line in this line-config profile.

Usage Specify an integer from 0 to 20dBm.The default is 20

Example **set max-aggr-power-level-down = 13**

Location AL-DMT:line-config

max-aggr-power-level-up

Description Specifies the maximum aggregate power level on the upstream channel on the designated line in this line-config profile.

Usage Specify an integer from 0 to 13dBm. The default is 13.

Example **set max-aggr-power-level-up = 10**

Location AL-DMT:line-config

max-baud-rate

Description *Not used.*

Location TERMINAL-SERVER:modem-configuration

max-bitrate-down

Description Specifies the maximum requested bit rate for downstream traffic.

Usage Specify an integer from 0Kbps to 15000Kbps. The default value is 8000Kbps.

Example **set max-bitrate-down = 10000**

Dependencies Consider the following:

- max-bitrate-down does not apply to operator-controlled rate-adaptation.
- If you set max-bitrate-down to a nonzero value in one of the subprofiles it appears in (either fast-path-config or interleave-path-config), set max-bitrate-down to 0 (zero) in the other subprofile.

Location AL-DMT:fast-path-config
AL-DMT:interleave-path-config

max-bitrate-up

Description Specifies the maximum requested bit rate for upstream traffic when operator-controlled rate-adaptive mode is in use.

Usage Specify an integer from 0Kpbs to 2000Kbps. The default value is 1000Kbps.

Example `set max-bitrate-up = 1200`

Dependencies Consider the following:

- `max-bitrate-up` does not apply to operator-controlled rate-adaptation.
- If you set `max-bitrate-up` to a nonzero value in one of the subprofiles it appears in (either `fast-path-config` or `interleave-path-config`), set `max-bitrate-up` to 0 (zero) in the other subprofile.

Location `AL-DMT:fast-path-config`
`AL-DMT:interleave-path-config`

max-bundle-members

Description Specifies the maximum number of data links allowed to join the multilink frame relay (MFR) bundle.

Usage Specify an integer. The default value is 1 (one). If you specify a number higher than 1, you can add bandwidth to the bundle up to the specified number of data links.

Example `set max-bundle-members = 4`

If `max-bundle-members` is set to 4 and the bundle has two data links, you can add bandwidth dynamically by configuring another data link profile with the bundle name.

Dependencies Consider the following:

- Because all member data links must reside on the same module, the module's capacity imposes a practical limitation on the maximum number of bundle members.
- The system checks first for a bundle specified by `mfr-bundle-name` in a `connection` profile. If it does not find a bundle name, it checks for one in the `frame-relay` profile.

Location `MULTI-LINK-FR`

max-burst-size

Description Specifies the maximum number of Asynchronous Transfer Mode (ATM) cells that can be transmitted at peak cell rate (PCR) before the Stinger unit determines that the connection exceeds the traffic contract.

Once the maximum burst size (MBS) value is reached, the Stinger unit begins discarding or tagging cells.

Usage Specify a cell rate relative to the PCR, not a rate in kilobits per second. The range is 1 to 256. Default values are as follows:

- For the `atm-config` and `atm-internal` profiles, the default is 2.
- For the `atm-qos` profile, the default is 4.

Example `set max-burst-size = 10`

Dependencies The `max-burst-size` value applies only to variable bit rate (VBR) real-time traffic.

Location `SYSTEM:traffic-shapers`
`ATM-INTERNAL:traffic-shapers[`*n*`]`
`ATM-QOS`

max-call-duration

Description Maximum number of minutes a session can stay connected.

Usage Specify a number from 0 through 1440. The default value of 0 (zero) sets no maximum limit on the duration of the session.

Example `set max-call-duration = 60`

Location `ANSWER-DEFAULTS:session-info`
`CONNECTION:session-options`

max-cc

Description Specifies the maximum number of control protocol data unit (PDU) retransmissions of the types BGN, END, and RESYNC that are allowed.

Usage Valid values are from 0 (zero) to 64. The default value is 4 retransmissions allowed.

Example `set max-cc = 4`

Location `ATM-IF-SIG-PARAMS:qsaal-options`

max-delay-down

Description Specifies the maximum allowed downstream delay (in microseconds) that is induced by interleaving data.

Usage Specify a value from 0 to 64 microseconds. The default is 16.

Example `set max-delay-down = 10`

Location `AL-DMT:interleave-path-config`

max-delay-up

Description Specifies the maximum allowed upstream delay (in microseconds) that is induced by interleaving data.

Usage Specify a value from 0 to 64 microseconds. The default is 16.

Example `set max-delay-up = 10`

Location `AL-DMT:interleave-path-config`

max-dialout-time

Description *Not used.*

Location `SYSTEM`

maximum-channels

Description Specifies the default value for the maximum number of channels in a multichannel call.

Usage Specify a number from 1 to 32. The default is 2.

Example `set maximum-channels = 10`

Location `CONNECTION:mp-options`

maximum-login-attempts

Description Maximum of number of login attempts that an administrative user can make.

Usage Specify a number between 1 through 6. The default value is 3.

Example `set maximum-login-attempts = 4`

Location `SYSTEM`

maxlink-client-enabled

Description Read-only. Indicates whether the MAXLink client software is enabled.

Usage Valid values for this read-only parameter are as follows:

- `enabled`—Indicates that the MAXLink client software is enabled for the Stinger unit.
- `disabled`—Indicates that the MAXLink client software is not enabled.

Example `maxlink-client-enabled = enabled`

Location `BASE`

max-margin-enabled

Description Enables or disables the ability of the Stinger unit to reduce the amount of transmit power according to the existing line conditions.

Usage Valid values are as follows:

- `yes`—Enables maximum power management.
- `no` (the default)—Disables maximum power management.

Example `set max-margin-enabled = yes`

Dependencies The system uses this parameter with the `max-add-noise-margin-down` and `max-add-noise-margin-down` parameters.

Location `AL-DMT:margin-config`

max-pap-auth-retry

Description Specifies the maximum number of retries for failed Password Authentication Protocol (PAP) authentication attempts.

Usage Specify a number from 0 to 5. The default is 0 (zero).

Example `set max-pap-auth-retry = 3`

Location `ANSWER-DEFAULTS:ppp-answer`
`CONNECTION:ppp-options`

max-pd

Description Specifies the maximum number of sequenced data protocol data units (PDUs) allowed between poll intervals.

Usage Valid values are from 1 to 64. The default value is 25.

Example `set max-pd = 28`

Location `ATM-IF-SIG-PARAMS:qsaal-options`

max-power-spectral-density

Description Specifies the maximum power spectral density (PSD) in both directions.

Usage Specify a number from 34 to 52 in even-numbered increments. The default is 40. If you specify an odd number, the system uses the even-numbered setting below it. The actual value used is the negative value of the number you specify.

Example `set max-power-spectral-density = 34`

Location `AL-DMT:line-config`

max-rate

Description Specifies the maximum rate that the modem trains when `rate-mode` is set to `auto` in a configured HDSL2, SDSL or SHDSL line.

When `rate-mode` is set to `fixed`, the modem attempts to train only to the rate specified by this parameter. You need only to configure the central office equipment (COE) for the maximum rate value. The modem uses G.hs handshake protocol to communicate the maximum rate value to the customer premises equipment (CPE).

Usage Specify one of the following values in kilobits per seconds (Kbps):

- 72000
- 136000
- 200000
- 264000
- 328000
- 392000
- 456000
- 520000
- 584000
- 648000
- 712000
- 776000
- 840000
- 904000
- 968000
- 1032000
- 1096000
- 1160000
- 1224000
- 1288000
- 1352000
- 1416000
- 1480000
- 1544000
- 1608000
- 1672000
- 1736000
- 1800000
- 1864000
- 1928000
- 1992000

- 2056000
- 2120000
- 2184000
- 2248000
- 2312000
- 2320000

Example `set max-rate = 1544000`

Dependencies This parameter applies only if the `interface-type` parameter is set to `g-shdsl`.

Location `HDSL2:line-config`
`SDSL:line-config`
`SHDSL:line-config`

max-restart

Description Specifies the maximum number of unacknowledged transmit Restart messages allowed.

Usage Specify a number from zero (0) to 32. The default is 2.

Example `set max-restart = 4`

Location `ATM-IF-SIG-PARAMS:q2931-options`

max-rip-trigger-delay

Description Specifies the maximum delay for triggered Routing Information Protocol (RIP) updates.

Usage Specify a value in seconds in a range from 1 to 30 seconds. The default is 8 seconds.

Example `set max-rip-trigger-delay = 20`

Location `IP-GLOBAL`

max-shared-users

Description Specifies the maximum number of users that can be simultaneously connected through a shared profile.

Usage Enter a number from 0 (zero) to the maximum number of calls the system can handle. The default zero value indicates no limit on the number of users sharing a profile at the same time.

Example `set max-shared-users = 3`

Location `CONNECTION`

max-source-port

Description Specifies the highest `rlogin` source port value.

Usage Specify an integer from 128 to 1023. The default is 1023.

Example `set max-source-port = 250`

Dependencies Consider the following:

- The `max-source-port` value must be greater than or equal to the setting of `min-source-port`.
- `rlogin` must be enabled for `max-source-port` to have any effect.

Location `TERMINAL-SERVER:terminal-mode-configuration:rlogin-options`

max-stat

Description Specifies the maximum length of the STAT protocol data unit (PDU).

Usage Valid values are from 32 to 128. The default value is 67.

Example `set max-stat = 64`

Location `ATM-IF-SIG-PARAMS:qsaal-options`

max-statenq

Description Specifies the maximum number of unacknowledged transmit STATUS ENQ messages allowed.

Usage The default value is 1. Up to 32 are allowed.

Example `set max-statenq = 2`

Location `ATM-IF-SIG-PARAMS:q2931-options`

max-switched-vcc-vpi

Description Maximum number of virtual path identifiers (VPIs) supported by the signaling stack on the interface for allocation to switched virtual channel connections (SVCCs).

Usage The default value for Stinger units is 255. On a Private Network-to-Network Interface (PNNI)-enabled trunk interface, you can specify a lower number to restrict SVCCs to a lower range of VPIs on the interface.

Example `set max-switched-vcc-vpi = 128`

Dependencies This parameter can be modified only for trunk interfaces. If you change its value on a line interface module (LIM) interface, the system displays an error message and reverts to the default setting.

Location `ATM-IF-CONFIG:extension-config`

max-switched-vpc-vpi

Description Maximum number of virtual path identifiers (VPIs) supported by the signaling stack on the interface for allocation to switched virtual path connections (SVPCs).

Usage The default value for Stinger units is 255. On a PNNI-enabled trunk interface, you can specify a lower number to restrict SVCCs to a lower range of VPIs on the interface.

Example `set max-switched-vpc-vpi = 255`

Dependencies This parameter can be modified only for trunk interfaces. If you change its value on a line interface module (LIM) interface, the system displays an error message and reverts to the default setting.

Location `ATM-IF-CONFIG:extension-config`

max-tunnels

Description In an Ascend Tunnel Management Protocol (ATMP) Home Agent gateway profile, specifies the maximum number of mobile clients that can use the connection, all at the same time, to tunnel into the home network.

Usage Specify an number from 0 through 65535. The default value of 0 (zero) sets no limit.

Example `set max-tunnels = 256`

Dependencies This setting applies only when `profile-type` specifies `gateway-profile`.

Location `CONNECTION:tunnel-options`

max-upstream-bandwidth

Description Read-only. Indicates the maximum upstream bandwidth of all line interface modules (LIMs).

Usage The `max-upstream-bandwidth` value is read-only.

Example `max-upstream-bandwidth = 622160`

Location `BANDWIDTH-STATS`

max-vccs

Description Read-only. Indicates the maximum number of virtual channel connections (VCCs) supported on the interface.

Usage This parameter is read-only.

Example `max-vccs = 8192`

Location ATM-IF-CONFIG:base-config

max-vpcs

Description Read-only. Indicates the maximum number of virtual path connections (VPCs) supported on the interface.

Usage This parameter is read-only.

Example max-vpcs = 255

Location ATM-IF-CONFIG:base-config

max-warning-core-dump

Description Specifies the maximum value for a range of warning numbers that will generate a core dump.

Usage Specify a numeric value with range of to 9999. The default value is 0 (zero).

Example **set max-warning-core-dump = 200**

Dependencies Consider the following:

- enable-core-dump must equal yes for this parameter to be active.
- If min-warning-core-dump and max-warning-core-dump both equal 0 then only warnings from 101 to 121 will cause a core dump.

Location DEBUG

mbone-lan-interface

Description *Deprecated and not used.*

Location IP-GLOBAL

See Also IP-GLOBAL:multiple-mbone:mbone-lan-interface[*n*]

mbone-lan-interface[*n*]

Description An array of four indexed parameters which specifies the physical address (shelf, slot, and port) of a LAN interface used to reach a multicast backbone (MBONE) router.

Usage Specify the physical interface address of an Ethernet interface on which the MBONE router resides.

Example **set mbone-lan-interface[1] physical-address = { { 1 3 0 } 0 }**

Dependencies This parameter and the mbone-profile[*n*] parameter are mutually exclusive.

Location IP-GLOBAL:multiple-mbone

mbone-profile

Description Specifies the name of a local `connection` profile for a multicast backbone (MBONE) router on a WAN interface.

Usage Specify the station name of a `connection` profile to the MBONE router.

Example `set mbone-profile = wan3-mbone`

Dependencies This parameter and the `mbone-lan-interface` parameter are mutually exclusive.

Location `IP-GLOBAL`

mbone-profile[*n*]

Description An array of four indexed parameters which specifies the name of a local `connection` profile for a multicast backbone (MBONE) router on a WAN interface.

Usage Specify the station name of a `connection` profile to the MBONE router.

Example `set mbone-profile[1] = wan3-mbone`

Dependencies This parameter and the `mbone-lan-interface[`*n*`]` parameter are mutually exclusive.

Location `IP-GLOBAL:multiple-mbone`

mcast-ip-address

Description IP address of a multicast group.

Usage Specify the IP address of a valid multicast group. The default is 0.0.0.0.

Example `set mcast-ip-address = 192.10.122.11`

Location `MCAST-SERVICE:filter-list[`*n*`]`

mcast-monitor-enabled

Description Enables or disables the multicast monitor trap.

Usage Select one of the following values:

- `no`—Disable the multicast monitor trap.
- `yes`—Enable the multicast monitor trap. This is the default.

Example `set mcast-monitor-enabled = no`

Location `TRAP`

mcast-type

Description Specifies the connection topology type.

Usage Specify one of the following values:

- p2p—The connection is a point-to-point connection. This is the default.
- p2mproot—The host is the root of point-to-multipoint connection.
- p2mpleaf—The host is a leaf of point-to-multipoint connection.

Example `set mcast-type = p2mproot`

Location ATM-VCL-CONFIG
ATM-VPL-CONFI

md5-authen-key

Description Specifies the secret key to be used for the message-digest algorithm 5 (MD5) cryptographic authentication method for Open Shortest Path First (OSPF) virtual links.

Usage Specify a text string of up to 16 characters. The default value is ascend0.

Example `set md5-authen-key = 12!secret*34key`

Dependencies When authen-type is set to md5, you must supply a value for the md5-authen-key setting, because the auth-key value no longer applies.

Location OSPF-VIRTUAL-LINK

md5-auth-key

Description Specifies the secret key to be used for the Open Shortest Path First (OSPF) message-digest algorithm 5 (MD5) cryptographic authentication method.

Usage Specify a text string of up to 16 characters. The default value is ascend0.

Example `set md5-auth-key = 12!secret*34key`

Dependencies When authen-type is set to md5, you must supply a value for the md5-auth-key setting, because the auth-key value no longer applies.

Location CONNECTION:ip-options:ospf-options
IP-INTERFACE:ospf

media-speed-mbit

Description Specifies the operating speed of the Ethernet interface.

Usage Valid values are as follows:

- 100mb (the default)—Sets the interface speed to 100Mbps.
- 10mb—Sets the interface speed to 10Mbps.

Example `set media-speed-mbit = 10mb`

Dependencies The system can determine the proper setting for this parameter when `auto-negotiate` is set to `yes`.

Location `ETHERNET`

menu-selection-string

Description *Not used.*

Location `TERMINAL-SERVER:menu-mode`

metric

Description Specifies a RIP-style metric for the route.

RIP is a distance-vector protocol that uses hop count as its metric. Among routes with the same destination address, a higher metric means that the system is less likely to choose the route.

Usage Specify a number from 0 to 15. In an `ip-route` profile, the default is 8. In a `private-route-table` profile, the default is 0.

Example `set metric = 3`

Location `IP-ROUTE`
`PRIVATE-ROUTE-TABLE:route-description-list[`*n*`]`

metrics1

Description *Not used.* Specifies the maximum cell rate in cells per second for the service categories represented in the `metrics-classes` value.

Usage The default value is 4294967295 (0xFFFFFFFF).

Example `set metrics1 = 4294967295`

Location `PNNI-METRICS`

metrics2

Description *Not used.* Specifies the available cell rate in cells per second for the service categories represented in the `metrics-classes` value.

Usage The default value is 4294967295 (0xFFFFFFFF).

Example `set metrics2 = 4294967295`

Location `PNNI-METRICS`

metrics3

Description *Not used.* Specifies the cumulative maximum cell transfer delay in microseconds for the service categories represented in the `metrics-classes` value.

Usage The default value is 4294967295 (0xFFFFFFFF).

Example `set metrics3 = 4294967295`

Location PNNI-METRICS

metrics4

Description *Not used.* Specifies the cumulative cell delay variation in microseconds for the service categories represented in the `metrics-classes` value.

Usage The default value is 4294967295 (0xFFFFFFFF).

Example `set metrics4 = 4294967295`

Location PNNI-METRICS

metrics5

Description *Not used.* Specifies the cumulative cell loss ratio for traffic having a cell loss priority (CLP) of 0 (zero), for the specified service categories.

Usage The Stinger unit computes the cell-loss ratio value as 10**(-*n*) where *n* is the value returned in this variable. The default value is 4294967295 (0xFFFFFFFF).

Example `set metrics5 = 4294967295`

Location PNNI-METRICS

metrics6

Description *Not used.* Specifies the cumulative cell loss ratio for traffic having a cell loss priority (CLP) of 0+1, for the specified service categories.

Usage The Stinger unit computes the cell loss ratio value as 10**(-*n*) where *n* is the value returned in this variable. The default value is 4294967295 (0xFFFFFFFF).

Example `metrics6 = 4294967295`

Location PNNI-METRICS

metrics7

Description *Not used.* Specifies the cell rate margin in cells per second for the service categories represented in the `metrics-classes` value.

Usage The default value is 4294967295 (0xFFFFFFFF).

Example `metrics7 = 4294967295`

Location PNNI-METRICS

metrics8

Description *Not used.* Specifies the variance factor in units of 2**(-8) for the service categories represented in the metrics-classes value.

Usage The default value is 4294967295 (0xFFFFFFFF).

Example **metrics8 = 4294967295**

Location PNNI-METRICS

metrics-admin-weight

Description Specifies the relative weight of the service categories assigned in the pnni-metrics profile, from the advertising node to the remote end of a Private Network-to-Network Interface (PNNI) link.

The lower the weight, the higher the preference for using the link. Weight can be assigned for any reason significant to the network administrator, but it is not intended to express information such as bandwidth capacity, which is provided by other values.

Usage Specify a number between 1 and 2,147,483,647, assigning the relative weight. The default value is 5040.

Example **set metrics-admin-weight = 5040**

Location PNNI-METRICS

metrics-classes

Description Specifies a number that translates to a 5-bit binary bit mask representing the service category or categories to which this set of metrics applies.

Each bit that is set represents a single service category for which the resources indicated are available:

- Bit 5 represents constant bit rate (CBR).
- Bit 4 represents real-time variable bit rate (VBR).
- Bit 3 represents nonreal-time VBR.
- Bit 2 represents available bit rate (ABR).
- Bit 1 represents unspecified bit rate (UBR).

Usage Specify a decimal integer that translates to a binary bit mask representing a service category. The 0 (zero) default indicates that the metrics to not apply to the associated service categories. A 1 (one) value indicates that the metrics do apply.

Example Use the following examples to help you:

- The following example sets a value that translates to the binary number 11111, which indicates that the specified metrics apply to all service categories:

```
set metrics-classes = 31
```

- The following example sets a value that translates to binary 10000, which indicates that the metrics apply to CBR traffic only:

```
set metrics-classes = 16
```

Location PNNI-METRICS

metrics-direction

Description Specifies the direction in which the parameters in this profile apply, relative to the advertising node.

Usage Valid values are as follows:

- `incoming` (the default)—Metrics apply to traffic coming into the advertising node.
- `outgoing`—Metrics apply to traffic leaving the advertising node.

Example `set metrics-direction = outgoing`

Location PNNI-METRICS:metrics-index

metrics-gcac-clp

Description Specifies the cell loss priority (CLP) level at which the advertised generic connection admission control (GCAC) parameters apply.

Usage Valid values are as follows:

- `clpequal0or1`—Specifies that GCAC parameters apply to cells with a cell loss priority of 1 (low-priority cells). Thus cells with a low priority can be discarded during periods of congestion. This is the default.
- `clpequal0`—Specifies that GCAC parameters apply to cells with a cell loss priority of 0 (normal cells). Thus normal priority cells can be discarded during periods of congestion.

Example `set metrics-gcac-clp = clpequal0`

Location PNNI-METRICS

metrics-index

Description Specifies an integer used as an index into the set of parameters associated with `metrics-tag` and `metrics-direction`.

Usage Specify a number as the index. The default is 0 (zero).

Example `set metrics-index = 29`

Location PNNI-METRICS:metrics-index

metrics-tag

Description Specifies an integer used to associate a set of traffic parameters that are always advertised together. This tag represents the group of metric settings that apply to the connectivity from the advertising node to the reachable address prefix.

Usage The tag must be defined in one or more `pnni-metrics` profiles. If no traffic parameters apply, use the default value `0` (zero).

Example `set metrics-tag = 12`

Location `PNNI-METRICS:metrics-index`
`PNNI-ROUTE-ADDR`

mfr-bundle-name

Description Specifies the name of the multilink frame relay (MFR) bundle to which this data link belongs.

Usage Specify a string of up to 15 characters. This name is used differently according to the profile in which it occurs:

- In a `multi-link-fr` profile, `mfr-bundle-name` defines a name for the bundle and for the Multi-Link-FR profile.
- In a `frame-relay` profile—`mfr-bundle-name` adds the data link and all data link connection identifiers (DLCIs) that use it to the MFR bundle. All member data links must specify the same bundle name in the `frame-relay` profile.
- In a `connection` profile—`mfr-bundle-name` adds the DLCI.

Example `set mfr-bundle-name = mfrb1`

Location `CONNECTION:fr-options`
`FRAME-RELAY`
`MULTI-LINK-FR`

mfr-bundle-type

Description Specifies the type of multilink frame relay (MFR) configuration.

Usage Only the `mfr-dte` type is supported.

Example `set mfr-bundle-type = mfr-dte`

Location `MULTI-LINK-FR`

min-bandwidth

Description Specifies the minimum aggregated bandwidth before a multilink frame relay (MFR) bundle is considered inactive.

Usage Accept the default of `0` (zero). Because of an unresolved problem in frame relay, if `min-bandwidth` is set to any other value, data is not sent on the bundle.

Example `set min-bandwidth = 0`

Location MULTI-LINK-FR

min-bitrate-down

Description Specifies the minimum bit rate for downstream traffic.

Usage Specify an integer from 0 to 8192Kbps. The default value is 128Kbps.

Example `set min-bitrate-down = 100`

Dependencies Consider the following:

- When automatic rate-adaptive mode is in effect, the line initializes at the downstream rate of `min-bitrate-down`, or it does not initialize at all.
- `min-bitrate-down` does not apply to operator-controlled rate-adaptation.
- If you set `min-bitrate-down` to a nonzero value in one subprofile, `min-bitrate-down` must be set to 0 (zero) in the other subprofile.

Location AL-DMT:fast-path-config
AL-DMT:interleave-path-config

min-bitrate-up

Description Specifies the minimum bit rate for upstream traffic.

Usage Specify an integer from 0 to 1024Kbps. The default value is 128Kbps.

Example `set min-bitrate-up = 20`

Dependencies Consider the following:

- When automatic rate-adaptive mode is in effect, the line initializes at the upstream rate of `min-bitrate-up`, or it does not initialize at all.
- `min-bitrate-up` does not apply to operator-controlled rate-adaptation.
- If you set `min-bitrate-up` to a nonzero value in one subprofile, set `min-bitrate-up` to 0 (zero) in the other subprofile.

Location AL-DMT:fast-path-config
AL-DMT:interleave-path-config

minimum-channels

Description Specifies the minimum number of channels in a multichannel call.

Usage Specify an integer from 1 to 32. The default is 1.

Example `set minimum-channels = 2`

Location ANSWER-DEFAULTS:mp-answer
CONNECTION:mp-options

min-noise-margin-down

Description Specifies the minimum downstream noise margin that the line tolerates relative to 0dB before attempting to increase power output.

Usage Specify an integer from 1dB to 31dB. The default is 6dB for 12-port line interface modules (LIMs) and 0dB for 48-port LIMs.

Example `set min-noise-margin-down = 15`

Dependencies Consider the following:

- The modem software limits the maximum noise margin to 15dB. If you specify a setting greater than 15, the modem software uses 15dB.
- This parameter is not used for and has no effect on 24-port LIMS.

Location `AL-DMT:margin-config`

min-noise-margin-up

Description Specifies the minimum upstream noise margin that the line tolerates relative to 0dB before attempting to increase power output.

Usage Specify an integer from 1 to 31dB. The default is 6dB for 12-port LIMs and 0dB for 48-port LIMs.

Example `set min-noise-margin-up = 15`

Dependencies Consider the following:

- The modem software limits the maximum noise margin to 15dB. If you specify a setting greater than 15, the modem software uses 15dB.
- This parameter is not used for and has no effect on 24-port LIMS.

Location `AL-DMT:margin-config`

minor-firmware-ver

Description Read-only. Indicates the minor firmware version of the synchronous digital subscriber line (SDSL) line interface module (LIM).

Usage The `minor-firmware-ver` setting is read-only.

Example `minor-firmware-ver = 0`

Location `SDSL-STAT:physical-status`

min-rate

Description Specifies the minimum rate in kilobits per second at which a modem trains when the `rate-mode` parameter is set to `auto`.

Usage Valid values are as follows:

- 72000 (default)

- 136000
- 200000
- 264000
- 328000
- 392000
- 456000
- 520000
- 584000
- 648000
- 712000
- 776000
- 840000
- 904000
- 968000
- 1032000
- 1096000
- 1160000
- 1224000
- 1288000
- 1352000
- 1416000
- 1480000
- 1544000
- 1608000
- 1672000
- 1736000
- 1800000
- 1864000
- 1928000
- 1992000
- 2056000
- 2120000
- 2184000
- 2248000
- 2312000
- 2320000

Example `set min-rate = 136000`

Dependencies This parameter applies to only if the `interface-type` parameter is set to `g-shdsl`.

Location HDSL2:line-config
SHDSL:line-config

min-rip-trigger-delay

Description Specifies the minimum delay, in seconds, for triggered Routing Information Protocol (RIP) updates.

Usage Specify a value in the range from 1 to 30 seconds. The default is 5 seconds.

Example **set min-rip-trigger-delay = 20**

Location IP-GLOBAL

min-source-port

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration:rlogin-options

min-switched-vcc-vci

Description Specifies the minimum virtual channel identifier (VCI) supported by the signaling stack on the interface for allocation to switched virtual channel connections (SVCCs).

Usage The default value for Stinger units is 32. On a Private Network-to-Network Interface (PNNI)-enabled trunk interface, you can specify a higher number to restrict SVCCs to a smaller range of VCIs on the interface.

Example **set min-switched-vcc-vci = 128**

Dependencies This parameter can be modified only for trunk interfaces. If you change its value on a line interface module (LIM) interface, the system displays an error message and reverts to the default setting.

Location ATM-IF-CONFIG:extension-config

min-warning-core-dump

Description Specifies the minimum value for a range of warning numbers that will generate a core dump.

Usage Specify a numeric value with range of to 9999. The default value is 0.

Example **set min-warning-core-dump = 200**

Dependencies Consider the following:

- enable-core-dump must equal yes for this parameter to be active.
- If min-warning-core-dump and max-warning-core-dump both equal 0, then only warnings from 101 to 121 will cause a core dump.

Location DEBUG

modem-failure-threshold

Description Specifies the number of modems on this line interface module (LIM) that must be regarded as nonfunctional before this LIM is considered nonfunctional.

Usage Specify a number between 1 and 12. The default value is 12 modems.

Example `set modem-failure-threshold = 10`

Location `LIM-SPARING-CONFIG:auto-lim-sparing-config:lim-sparing-config[n]`

modem-hw-state

Description Read-only. Indicates the state of the interface after initialization.

Usage The Modem-Hw-State value is read-only. Valid values are

- `init-ok` (the default)—Indicates that the interface is functioning normally.
- `bad-sdram`—Indicates memory problems, probably associated with a self-test failure.
- `bad-cache`—Indicates memory problems, probably associated with a self-test failure.
- `bad-cache-sdram`—Indicates memory problems, probably associated with a self-test failure.

Example `modem-hw-state = init-ok`

Location `AL-DMT-STAT:physical-status`

mode-mismatch-clear-timer-duration

Description Specifies the mode mismatch clear timer duration in tens of milliseconds in automatic protection switching (APS).

Usage Specify a number from 0 through 4,294,967,295. The default is 1000.

Example `set mode-mismatch-clear-timer-duration = 2000`

Location `APS-CONFIG`

mode-mismatch-failure

Description Read-only. Indicates whether a mode mismatch has occurred.

Usage Valid values for this read-only parameter are as follows:

- `true`—A revertive or nonrevertive mode mismatch occurred.
- `false`—No mode mismatch occurred.

Example `mode-mismatch-failure = false`

Location `APS-STAT`

mode-mismatch-failure-timer-duration

Description Specifies the mode mismatch failure timer duration in tens of milliseconds in automatic protection switching (APS).

Usage Specify a number from 0 through 4,294,967,295. The default is 250.

Example `set mode-mismatch-failure-timer-duration = 300`

Location APS-CONFIG

modem-mod

Description *Not used.*

Location TERMINAL-SERVER:modem configuration

modem-table-index

Description Read-only. Indicates the Simple Network Management Protocol (SNMP) modem table index number of the device whose state is described by the `admin-state` or `admin-state-phys-if` profile.

Usage The `modem-table-index` setting is read-only.

Example `modem-table-index = 0`

Location ADMIN-STATE
ADMIN-STATE-PHYS-IF

modem-transmit-level

Description *Not used.*

Location TERMINAL-SERVER:modem-configuration

mru

Description Specifies the maximum number of bytes the Stinger unit can receive in a single packet.

Usage In most cases, you can accept the default setting for the connection. If you must change the default, specify a value less than the default value.

- For PPP, the default is 1524. Accept the default unless the device at the remote end of the link cannot support it.
- For frame relay, the default is 1532.

Example `set mru = 1524`

Location ANSWER-DEFAULTS:ppp-answer
CONNECTION:ppp-options
FRAME-RELAY

msg-proc-model

Description Specifies the message-processing model to use when generating SNMP messages.

Usage Specify one of the following values:

- v1 (the default)—Specifies SNMP version 1.
- v3—Specifies SNMP version 3. For SNMPv3 notifications support, specify v3.

Example `set msg-proc-model = v3`

Location SNMPV3-TARGET-PARAM

mtu

Description Specifies the maximum transmission unit (MTU) size—the maximum number of bytes that the Stinger unit can send in a single packet.

Usage Specify a number from 128 to 1524 bytes. Defaults are as follows:

- For Point-to-Point Protocol (PPP) connections, the default is 1524.
- For Asynchronous Transfer Mode (ATM) connections, the default is 1560.

Example `set mtu = 1500`

Location ANSWER-DEFAULTS:ppp-answer
CONNECTION:atm-connect-options
CONNECTION:atm-options
CONNECTION:ppp-options

mtu-limit

Description Specifies the maximum IP packet size, in bytes, that the system can transmit to a remote agent without performing prefragmentation.

Usage Specify a number from 0 through 65535. The default value of 0 (zero) disables this feature. If you specify a nonzero value, the smallest IP packet size the system uses is 68, even if a smaller size is specified. This value complies with the minimum IP packet size requirement in RFC 791.

Example `set mtu-limit = 1472`

Location ATMP

multicast-address

Description Specifies the multicast destination address for multicast stacking control packets. The packets are sent to the specified multicast address and to the UDP port number specified by udp-port.

Usage Specify an IP address in dotted decimal notation. The default setting is 239.192.74.72, which is within the organization local scope defined in RFC 2365 as the address space from which an organization must allocate subranges when defining scopes for private use.

The specified address must be a valid multicast (class D) address.

Example `set multicast-address = 239.192.74.75`

Location STACKING

multicast-allowed

Description Enables or disables handling of Internet Group Management Protocol (IGMP) requests and responses on the LAN or WAN interface.

Usage Valid values are as follows:

- yes—Responds to IGMP client requests and responses.
- no (the default)—Does not respond to multicast clients on the interface.

Example `set multicast-allowed = yes`

Dependencies If you set multicast-allowed to yes and multicast-rate-limit remains at the default of 100, the Stinger unit handles IGMP responses and requests on the interface but does not forward multicast traffic. You must set multicast-rate-limit to a nondefault value before the Stinger unit can forward multicast traffic.

Location CONNECTION:ip-options
IP-INTERFACE

multicast-forwarding

Description Enables or disables multicast forwarding in the Stinger unit.

When you change the value to yes and write the profile, the multicast subsystem reads the values in the ip-global profile and initiates the forwarding function on the interface on which the multicast backbone (MBONE) router resides.

Usage Specify yes or no. The default is no.

- yes—Enables multicast forwarding.
- no (the default)—Disables multicast forwarding.

Example `set multicast-forwarding = yes`

Dependencies You must specify the interface on which the MBONE router resides by setting the mbone-lan-interface or mbone-profile parameters. If you modify a multicast value in the ip-global profile, you must toggle this setting to force a read of the new values.

Location IP-GLOBAL

multicast-group-leave-delay

Description Specifies the number of seconds the Stinger unit waits before forwarding an Internet Group Management Protocol (IGMP)-v2 Leave Group message from a multicast client to the multicast backbone (MBONE) router.

Usage Specify a number of seconds from 0 to 120. The default is 0 (zero).

- If you accept the default, the Stinger unit forwards a Leave Group message immediately.
- If you specify a value other than the default, and the Stinger unit receives a Leave Group message, the unit sends an IGMP query to the WAN interface or client from which it received the Leave Group message. If the Stinger unit does not receive a response from an active multicast client that belongs to the client group, it sends a Leave Group message when the time you specify expires.

If users might establish multiple multicast sessions for identical groups, specify a value of 10 to 20 seconds.

Example `set multicast-group-leave-delay = 15`

Dependencies This setting applies only when `multicast-forwarding` and `multicast-allowed` are set to `yes`.

Location `CONNECTION:ip-options`
`IP-INTERFACE`

multicast-hbeat-addr

Description Specifies the multicast address to be monitored for determining a minimal level of traffic (heartbeat).

The heartbeat monitoring function causes the unit to poll for multicast traffic and, if desired, send an SNMP alarm if traffic falls below a certain threshold.

Usage Specify a multicast address in dotted decimal notation. The default is 0.0.0.0.

Example `set multicast-hbeat-addr = 224.1.1.4`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune multicast heartbeat monitoring.

Location `IP-GLOBAL`

multicast-hbeat-alarm-threshold

Description Specifies the number of packets within the monitoring interval that represents normal multicast traffic. If the number of monitored packets falls below this number, the SNMP alarm trap is sent.

Usage Specify a number of packets that represents a minimal level of normal multicast traffic. The default value of 0 (zero) disables heartbeat monitoring.

Example `set multicast-hbeat-alarm-threshold = 100`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune multicast heartbeat monitoring.

For example, if you set `multicast-hbeat-number-slot` to 5, and `multicast-hbeat-slot-time` to 3 seconds, the Stinger unit polls five times at 3-second intervals. After 60 seconds of elapsed time, it compares the number of multicast packets received to the value of this parameter.

Location `IP-GLOBAL`

multicast-hbeat-number-slot

Description Specifies the number of times to poll for the specified interval before comparing the number of heartbeat packets received to the alarm threshold.

Usage Specify the number of times the Stinger unit polls for packets before comparing to the threshold. The default is 0 (zero).

Example `set multicast-hbeat-number-slot = 5`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune multicast heartbeat monitoring.

For example, if you set `multicast-hbeat-number-slot` to 5, and `multicast-hbeat-slot-time` to 3 seconds, the Stinger unit polls five times at 3-second intervals. After 60 seconds of elapsed time, it compares the number of multicast packets received to the value of `multicast-hbeat-alarm-threshold`.

Location `IP-GLOBAL`

multicast-hbeat-port

Description Specifies a UDP port number to be monitored for determining a minimal level of traffic (heartbeat). The Stinger unit counts only packets received on this port.

Usage Specify a UDP port number. The default is 0 (zero).

Example `set multicast-hbeat-port = 16834`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune multicast heartbeat monitoring.

Location `IP-GLOBAL`

multicast-hbeat-slot-time

Description Specifies a polling interval (in seconds) during which the Stinger unit polls for multicast traffic.

Usage Specify the number of seconds between polling cycles. The default is 0 (zero).

Example `set multicast-hbeat-slot-time = 6`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune how multicast heartbeat monitoring operates.

For example, if you set `multicast-hbeat-number-slot` to 5, and `multicast-hbeat-slot-time` to 3 seconds, the Stinger unit polls five times at 3-second intervals. After 60 seconds of elapsed time, it compares the number of multicast packets received to the value of this parameter.

Location `IP-GLOBAL`

multicast-hbeat-src-addr

Description Specifies a source IP address to be ignored. Packets received from that address are ignored for heartbeat monitoring purposes.

Usage Specify an IP address in dotted decimal notation. The default is 0.0.0.0.

Example `set multicast-hbeat-src-addr = 2.2.2.2`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune multicast heartbeat monitoring.

Location `IP-GLOBAL`

multicast-hbeat-src-addr-mask

Description Specifies a subnet mask that the system applies to the `multicast-hbeat-src-addr` value before comparing it to the source address in a packet.

Usage Specify a subnet mask. The default is 0.0.0.0.

Example `set multicast-hbeat-src-addr-mask = 255.255.255.248`

Dependencies All the `multicast-hbeat` values interact to enable the optional heartbeat monitoring feature and fine-tune multicast heartbeat monitoring.

Location `IP-GLOBAL`

multicast-interface-ip-address

Description Specifies the IP address of the Ethernet port to be used for stacking IP multicast control traffic.

Usage Specify an IP address in dotted decimal notation. The default is 0.0.0.0, which specifies that the unit uses the system's shelf-controller Ethernet interface.

Example `set multicast-interface-ip-address = 10.10.10.1`

Location `STACKING`

multicast-max-groups

Description Maximum number of links to multicast groups allowed for this client.

Usage Specify a numeric value between 0 and 512. The default is 0.

Example `set multicast-max-groups = 4`

Location `CONNECTION:ip-options`

multicast-member-timeout

Description *Deprecated and not used.*

Location `IP-GLOBAL`

See Also `CONNECTION:igmp-option`

multicast-rate-limit

Description Specifies the rate at which the Stinger unit accepts multicast packets from clients on the LAN or WAN interface.

Usage Valid values are as follows:

- To begin forwarding multicast traffic on the interface, specify an integer lower than 100.
- To disable the forwarding of multicast traffic on the interface, specify the default (100). This setting can help the multicast forwarder to prevent multicast clients from creating response storms to multicast transmissions. It does not affect the multicast backbone (MBONE) interface.

Example Setting this parameter as in the following example enables the Stinger unit to accept a packet from multicast clients on the interface every 5 seconds. The unit discards any subsequent packets received in that 5-second window.

```
set multicast-rate-limit = 5
```

Dependencies If you set `multicast-allowed` to `yes` and `multicast-rate-limit` remains at the default of 100, the Stinger unit handles Internet Group Management Protocol (IGMP) responses and requests on the interface but does not forward multicast traffic. You must set `multicast-rate-limit` to a nondefault value before the Stinger unit can forward multicast traffic.

Location `CONNECTION:ip-options`
`IP-INTERFACE`

multicast-service-profile

Description Name of the `mcast-service` profile used by the client defined in the `connection` profile.

Usage Specify an alphanumeric value up to 31 characters long. The default value is null.

Example `set multicast-service-profile = gold`

Location `CONNECTION:ip-options`

multi-rate-enabled

Description Read-only. Indicates whether the unit can make dialable wideband service (DWS) calls.

Usage The value is read-only. Valid values are as follows.

- `yes`—Indicates that the unit can make DWS calls.
- `no`—Indicates that the unit cannot make DWS calls.

Example `multi-rate-enabled = yes`

Location `BASE`

must-accept-address-assign

Description Enables or disables the ability of an incoming caller to reject an assigned IP address during PPP negotiation.

Usage Valid values are as follows:

- `yes`—Callers must accept assigned addresses. If a caller rejects dynamic IP address assignment, the Stinger unit hangs up.
- `no` (the default)—An address received from the far end can override a dynamically assigned address.

Example `set must-accept-address-assign = yes`

Location `IP-GLOBAL`

must-agree

Description Specifies whether the controllers must agree on the choice of a primary control module.

Usage Valid values are as follows:

- `no` (the default)—Specifies that the primary controllers need not agree on the choice of a primary control module. This setting enables a control module to become primary without the agreement of the other control module. This setting is recommended.
- `yes`—Specifies that the primary controllers must agree.

Example `set must-agree = no`

Location `REDUNDANCY:context:context[`*n*`]`

N

n391-val

Description Specifies the number of T391 polling cycles between full Status Enquiry messages.

Usage Specify an integer from 1 to 255. The default is 6, which specifies that after six status requests spaced `t391-val` seconds apart, the User-to-Network Interface for data circuit-terminating equipment (UNI-DTE) device requests a full status report.

Example `set n391-val = 15`

Dependencies If `link-type` is set to `dce`, `n391-val` does not apply.

Location `FRAME-RELAY`

n392-val

Description Specifies the number of errors, during DTE-N393-monitored events, that cause the user side to declare the network side's procedures inactive.

Usage Specify an integer from 1 to 10. The value you enter must be less than the `n393-val` setting. The default is 3.

Example `set n392-val = 5`

Dependencies If `link-type` is set to `dce`, `n392-val` does not apply.

Location `FRAME-RELAY`

n393-val

Description Specifies the DTE-monitored event count.

Usage Specify an integer from 1 to 10. The value you enter must be greater than the `n392-val` setting. The default is 4.

Example `set n393-val = 6`

Dependencies If `link-type` is set to `dce`, `n393-val` does not apply.

Location `FRAME-RELAY`

nailed-group

Description For all profiles except the status profiles, specifies a number associated with the bandwidth of a physical interface. For `atm-if-stat` and `ima-group-stat`, this parameter indicates that number.

You refer to this number in a `connection` or RADIUS profile to bind the connection to the interface. The system generates a default `nailed-group` number for all Asynchronous Transfer Mode (ATM) interfaces of its external line and trunk modules, and for the internal ATM interface of an ISDN digital subscriber line (IDSL) or router module.

This parameter appears in every profile associated with a physical interface installed in the system. In all profiles in which it appears, except `atm-if-stat` and `ima-group-stat`, you can assign a different `nailed-group` number if necessary by modifying the value of this parameter.

Usage Specify a number from 1 to 2048, or use the default value assigned by the system.

Example `set nailed-group = 200`

Dependencies A `nailed-group` number must be unique within the system.

Location `AL-DMT:line config`
`ATM-IF-STAT`
`ATM-INTERNAL:line-config`
`CONNECTION:atm-options`
`CONNECTION:atm-connect-options`
`DS1-ATM:line-config`
`DS3-ATM:line-config`
`OC3-ATM:line-config`
`E3-ATM:line-config`
`HDSL2:line-config`
`IMAGROUP`
`IMA-GROUP-STAT`
`SDSL:line-config`
`SHDSL:line-config`

nailed-groups

Description *Not supported.* Specifies the `nailed-group` number for bandwidth used by the connection. Bandwidth is associated with specific connections in Stinger units in the `atm-options` and `atm-connect-options` subprofiles of a `connection` profile.

Location `CONNECTION:telco-options`

nailed-mode

Description *Not used.* Specifies how the Stinger unit uses the link's dedicated (nailed-up) channels, and whether the link uses dedicated channels alone or a combination of dedicated and switched channels.

Usage Valid values are as follows:

- `ft1` (the default)—Specifies that the link uses only dedicated channels.
- `ft1-mpp` —Specifies that the link uses a combination of dedicated and switched channels.
- `ft1-bo`—Specifies that the link uses a combination of dedicated and switched channels with backup and overflow.

  In providing backup bandwidth, the Stinger unit drops all the dedicated channels when the quality of a dedicated channel falls to Marginal or Poor in an FT1-BO call. The unit then attempts to replace dropped dedicated channels with switched channels. It also monitors dropped dedicated channels. When the quality of all dropped channels changes to Fair or Good, the unit reinstates them.

  In providing overflow protection, the Stinger unit supplies supplemental dial-up bandwidth during times of peak demand to prevent saturation of a dedicated line. The circuit remains in place until the traffic subsides, and then it is removed.

Example `set nailed-mode = ft1`

Location `FRAME-RELAY`

nailed-up-group

Description Specifies the group number assigned to the dedicated (nailed-up) channels of a frame relay link.

Usage Specify a number assigned to a group of dedicated channels. The maximum value you can enter is 1024. Default values are as follows:

- In a `connection` or `frame-relay` profile, the default is 1 (one).
- In a `call-info` profile, the default is 852.

Example `set nailed-up-group = 5`

Location `CALL-INFO`
`CONNECTION:telco-options`
`FRAME-RELAY`

name

Description Specifies a name for the configuration or other entity. If the name field indexes the profile, it is used by the system to retrieve the related configuration. If it is not used as the profile index, `name` is used for administrative purposes, or to specify the name of an outside entity such as a host or a user allowed to access the unit's interface.

For profiles that configure a physical interface, the system assigns a default name that shows a shorthand version of the interface physical address. For example, if the interface is in slot 4, interface 12, the system-generated `name` value is `1:4:12`. However, you can replace this value with another name if you wish.

Usage Specify a text string that does not contain spaces. The maximum length and default value of `name` depend on the profile in which it is located, as shown in the following table:

Profile location of `name` parameter	**Maximum length**	**Default**
`AL-DMT/{ any-shelf any-slot 0 }`	15 characters	Null string
`ADSL-BIN-LOADING/""`	23 characters	Null string
`ALARM/""`	23 characters	Null string
`APS-CONFIG/""`	15 characters	Null string
`APS-STAT/""`	15 characters	Null string
`ATM-INTERNAL/{ any-shelf any-slot 0 }`	15 characters	Null string
`DS1-ATM/{ any-shelf any-slot 0 }`	15 characters	*shelf*:*slot*:*item*
`DS3-ATM/{ any-shelf any-slot 0 }`	15 characters	Null string
`DSL-THRESHOLD/""`	23 characters	Null string
`E3-ATM/{ any-shelf any-slot 0 }`	15 characters	Null string
`HDSL2/{ any-shelf any-slot 0 }`	15 characters	Null string
`HIGH-SPEED-SLOT-STATIC-CONFIG/ { any-shelf any-slot 0 }`	15 characters	Null string
`IDSL/{ any-shelf any-slot 0 }`	15 characters	Null string
`IMA-GROUP-STAT/""`	15 characters	Null string
`IMAGROUP/""`	15 characters	Null string
`IMAHW-CONFIG/{ any-shelf any-slot 0 }`	15 characters	Null string
`IP-ROUTE/""`	31 characters	Null string
`OC3-ATM/{ any-shelf any-slot 0 }`	15 characters	Null string
`PNNI-ROUTE-ADDR/""`	50 characters	Null string
`PRIVATE-ROUTE-TABLE/""`	23 characters	Null string
`REMOTE-SHELF-CONFIG`	23 characters	Null string
`SDSL/{ any-shelf any-slot 0 }`	15 characters	Null string
`SHDSL/{ any-shelf any-slot 0 }`	15 characters	Null string
`SLOT-STATIC-CONFIG/ { any-shelf any-slot 0 }`	15 characters	Null string
`SNMP-MANAGER/""`	31 characters	Null string
`SNMPV3-NOTIFICATION/""`	23 characters	Null string
`SNMPV3-TARGET-PARAM/""`	23 characters	Null string
`SNMPV3-USM-USER/""`	23 characters	Null string
`SWITCH-CONFIG/"":atm-parameters: outgoing-queue[n]`	15 characters	*shelf*:*slot*:*item*
`SYSTEM`	23 characters	Null string
`USER/""`	23 characters	Null string
`VROUTER/""`	23 characters	Null string

Example `set name = queue-originate`

Location See preceding table.

nas-port-type

Description *Not supported.* Specifies a type of service for the session.

Location `CONNECTION:telco-options`

near-end-crc

Description Read-only. Indicates the number of cyclic redundancy check (CRC) errors detected by an ADSL transceiver unit (ATU) in the central office equipment (COE).

Usage The `near-end-crc` value is read-only.

Example `near-end-crc = 0`

Location `AL-DMT-STAT:physical-statistic`

near-end-fec

Description Read-only. Indicates the number of forward error correction (FEC) errors detected by an ADSL transceiver unit (ATU) in the central office equipment (COE).

Usage The `near-end-fec` value is read-only.

Example `near-end-fec = 0`

Location `AL-DMT-STAT:physical-statistic`

near-end-hec

Description Read-only. Indicates the number of header error checksum (HEC) errors detected by an ADSL transceiver unit (ATU) in the central office equipment (COE).

Usage The `near-end-hec` value is read-only.

Example `near-end-hec = 0`

Location `AL-DMT-STAT:physical-statistic`

near-end-ima-group-state

Description Read-only. Indicates the current operational state of the near-end inverse multiplexing over ATM (IMA) group.

Usage Values are as follows:

Value	Description
not-configured	IMA group is not configured.
start-up	IMA group is in the startup state.
start-up-ack	IMA group is in a transitional state and has transitioned out of IMA startup state.
aborted-unsupported-framelength	IMA group establishment failed because the frame length (M) received from the remote end was not acceptable to the local end.
aborted-incompatible-symmetry	IMA group establishment failed because the remote end and local end have incompatible group symmetry modes.
aborted-other	IMA group establishment failed for unspecified reasons.
insufficient-links	IMA group is currently in the insufficient links state.
blocked	IMA group is in the blocked state.
operational	IMA group is in the operational state.
aborted-unsupported-version	IMA group failed because of an IMA version mismatch between the local and remote ends.

Example `near-end-ima-group-state = operational`

Location `IMA-GROUP-STAT`

near-end-num-failures

Description Read-only. Indicates the number of times a near-end group failure (for example, `Config-Aborted` or `Insufficient-Links`) has been reported in the current 15-minute interval.

Usage The valid range for this read-only value is from 0 (zero) to 2147483647.

Example `near-end-num-failures = 3`

Location `IMA-GROUP-STAT:ima-group-statistic`

near-end-rx-failure-status

Description Read-only. Indicates the link's near-end receive (Rx) failure status.

Usage Valid values for this read-only parameter are as follows:

Value	Description
no-failure	Link does not have any failure.
ima-link-failure	Link experienced a failure at the inverse multiplexing over ATM (IMA) layer.
lif-failure	Link experienced a loss of IMA frame (LIF) failure.
lods-failure	Link experienced a loss of delay synchronization (LODS) failure.
misconnected	Link is misconnected to the far-end.
blocked	Link is in blocked state.
fault	Link is in fault state.
far-end-tx-link-unusable	Far end Tx of the link is in an unusable state.
far-end-rx-link-unusable	Far end Rx of the link is in an unusable state.

Example `near-end-rx-failure-status = no-failure`

Location `DS1-ATM-STAT:ima-link-status`

near-end-rx-link-state

Description Indicates the near end receive (Rx) state of the link.

Usage Valid values for this read-only parameter are as follows:

Value	Description
not-in-group	Link is not part of an IMA group.
unusable-no-given-reason	Link is not usable but the reason is not known.
unusable-fault	Link is not usable because of a fault.
unusable-misconnected	Link is not usable because it is misconnected with the far end.
unusable-inhibited	Link is not usable because it is in an inhibited state.
unusable-failed	Link is not usable because it is in failed state.
usable	Link is usable.
active	Link is active, part of an IMA group, and carrying traffic from the ATM layer.

Example `near-end-rx-link-state = not-in-group`

Location DS1-ATM-STAT:ima-link-status

near-end-rx-num-failures-counter

Description Read-only. Indicates the number of times a near-end receive failure alarm condition has been entered on this link.

Such conditions include loss of IMA frame (LIF), loss of delay synchronization (LODS), remote failure indication (RFI)-IMA, misconnection, and various forms of implementation-specific receive faults.

Usage The valid range for this read-only value is from (0) zero to 2147483647.

Example near-end-rx-num-failures-counter = 0

Location DS1-ATM-STAT:ima-link-statistic

near-end-rx-unusable-secs-counter

Description Read-only. Indicates the number of received unusable seconds at the near-end receive (Rx) link.

Usage The valid range for this read-only value is from 0 to 4294967295 counts.

Example near-end-rx-unusable-secs-counter = 100

Location DS1-ATM-STAT:ima-link-statistic

near-end-sev-errored-secs-counter

Description Read-only. Indicates the count of 1-second intervals during which 30 percent or more of the inverse multiplexing over ATM (IMA) Control Protocol (ICP) cells were counted as IV-IMA conditions or had one or more defects, except during unavailable seconds IMA (UAS-IMA) conditions. The count is for the current 15-minute interval.

Defects include link defects such as loss of synchronization (LOS), out of frame (OOF) or loss of frame (LOF) errors, Alarm Indication signals (AISs), or loss of cell delineation (LCD); loss of IMA frame (LIM) defects; or loss of delay synchronization (LODS) defects.

Usage The valid range for this read-only value is from 0 (zero) through 2147483647.

Example near-end-sev-errored-secs-counter = 0

Location DS1-ATM-STAT:ima-link-statistic

near-end-tx-link-state

Description Read-only. Indicates the near end transmission state of the link.

Usage Valid values for this read-only parameter are as follows:

Value	Description
not-in-group	Link is not part of an IMA group.
unusable-no-given-reason	Link is not usable but the reason is not known.
unusable-fault	Link is not usable because of a fault.
unusable-misconnected	Link is not usable because it is misconnected with the far end.
unusable-inhibited	Link is not usable because it is in an inhibited state.
unusable-failed	Link is not usable because it is in failed state.
usable	Link is usable.
active	Link is active, part of an IMA group, and carrying traffic from the ATM layer.

Example `near-end-tx-link-state = not-in-group`

Location `DS1-ATM-STAT:ima-link-status`

near-end-tx-num-failures-counter

Description Read-only. Indicates the number of times a near-end transmit failure alarm condition (some form of implementation-specific transmit fault) has been entered on this link.

Usage The valid range for this read-only value is from zero to 2147483647.

Example `near-end-tx-num-failures-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

near-end-tx-unusable-secs-counter

Description Read-only. Indicates the number of transmitted unusable seconds at the near-end transmit (Tx) link.

Usage The valid range for this read-only value is from 0 to 4294967295 counts.

Example `near-end-tx-unusable-secs-counter = 100`

Location `DS1-ATM-STAT:ima-link-statistic`

near-end-unavail-secs-counter

Description Read-only. Indicates the count of unavailable seconds at the near-end.

Unavailability begins at the onset of 10 contiguous severely-errored-seconds inverse multiplexing over ATM (IMA) (SES-IMA) conditions and ends at the onset of 10 contiguous seconds with no severely errored IMA seconds.

Usage The valid range for this read-only value is from zero (0) to 2147483647.

Example `near-end-unavail-secs-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

need-max-vpswitching-vpis

Description Increase the maximum number of VPCs on a slot by 3.

Usage Valid values are as follows:

- `yes`—Increase the maximum number of VPCs on a slot by 3.
- `no` (the default)—Do not increase the maximum number of VPCs on a slot.

Example **`set need-max-vpswitching-vpis = yes`**

Dependencies The `use-vp-switching-workaround` parameter must be set to `yes` for a `yes` setting in this parameter to have an effect.

Location `SLOT-STATIC-CONFIG`

See Also `use-vp-switching-workaround`

neighbor-ip-address

Description Specifies the address of a Private Network-to-Network Interface (PNNI) neighbor reachable across this interface, to which a network management station can communicate.

Usage Specify an address in dotted decimal notation. The default is the null address `0.0.0.0`.

Example **`set neighbor-ip-address = 0.0.0.0`**

Location `ATM-IF-CONFIG:base-config`

neighbor-name

Description Specifies the textual name of the interface on the neighbor system.

Usage Specify a plain text string to designate the name. If the neighbor's interface does not have a name, this setting must be null (the default).

Example **`set neighbor-name = r2d2`**

Location `ATM-IF-CONFIG:base-config`

neighbor-router-id

Description Specifies the router ID of the other end-point router in an Open Shortest Path First (OSPF) virtual link.

Usage Specify the IP address of an area border router, in dotted decimal notation.

Example `set neighbor-router-id =`

Dependencies The routers that make up a virtual link must have interfaces in a common nonbackbone area (the transit area), which cannot be a stub area.

Location OSPF-VIRTUAL-LINK

netbios-primary-ns

Description Specifies the IP address of a primary NetBIOS server.

Usage Specify an IP address in dotted decimal notation.

Example `set netbios-primary-ns = 2.2.2.2/28`

Location IP-GLOBAL

netbios-secondary-ns

Description Specifies the IP address of a secondary NetBIOS server. The Stinger unit accesses the secondary server if the primary NetBIOS server is unavailable.

Usage Specify an IP address in dotted decimal notation.

Example `set netbios-secondary-ns = 2.2.2.2/28`

Location IP-GLOBAL

netmask

Description Specifies a subnet mask for the destination IP address of a private route. The value of `netmask` is set automatically when you specify a prefix length as part of the IP address.

Usage Specify a subnet mask in dotted decimal notation. The default is `0.0.0.0`.

Example `set netmask = 255.255.255.255`

Location IP-INTERFACE
IP-ROUTE
PRIVATE-ROUTE-TABLE

netmask-local

Description Specifies the netmask of the local interface address.

Usage Specify a netmask in IP address format. The default is 0.0.0.0.

Example `set netmask-local = 255.255.255.0`

Location CONNECTION:ip-options

netmask-remote

Description Specifies the netmask of the remote address.

Usage Specify a netmask in IP address format. The default is 0.0.0.0.

Example `set netmask-remote = 255.255.255.0`

Location CONNECTION:ip-options

network-loopback

Description Read-only. Indicates whether there is a line looped back out to the network.

Usage For this read-only parameter valid values are as follows:

- `true`—Indicates that a line is looped back to the network.
- `false`—Indicates that no line is looped back to the network.

Example `network-loopback = false`

Location DS1-ATM-STAT
T1-STAT

network-management-enabled

Description Read-only. Indicates whether the network-management option is enabled.

Usage The `network-management-enabled` parameter is read-only. Valid values are as follows:

- `yes`—Indicates that the network-management option is enabled.
- `no`—Indicates that the network-management option is disabled.

Example `network-management-enabled = yes`

Location BASE

network-mgmt-voip-enabled

Description Read-only. Indicates the status of network management for the Voice over IP (VoIP) feature.

Usage Read-only parameter with the following possible values:

- `no`—Network management VoIP feature is not enabled.
- `yes`—Network management VoIP feature is enabled.

Example network-mgmt-voip-enabled = yes

Location BASE

network-type

Description Specifies or indicates a network type, as follows:

- In HDSL2-STAT:physical-status and SHDSL-STAT:physical-status profiles, indicates the standard network type for an SHDSL line.
- In CONNECTION:ip-options:ospf-options and IP-INTERFACE:ospf profiles, specifies the type of network to which the interface connects.

Usage Valid values are as follows:

- In HDSL2-STAT:physical-status and SHDSL-STAT:physical-status profiles, a read-only parameter with the following possible values:
  - annex-a
  - annex-b
  - annex-b-anfp
- In CONNECTION:ip-options:ospf-options and IP-INTERFACE:ospf profiles, specify one of the following values:
  - broadcast—Specifies any broadcast-capable network, such as Ethernet. (This is the default value in IP-INTERFACE/{ { any-shelf any-slot 0 } 0 }:ospf.)
  - nonbroadcast—Specifies an Open Shortest Path First (OSPF) nonbroadcast multiaccess (NBMA) network. An NBMA network has multiple points of access (more than two routers) and does not support broadcast capability. Frame relay and X.25 are typically NBMA networks.
  - point-to-point—Specifies an interface connected to one other node on the remote end. (This is the default value in CONNECTION:ip-options:ospf-options.)

Dependencies Enabling the non-multicast parameter in the ospf-options subprofile causes the translation of the multicast traffic to directed traffic. This value is typically used with a serial link, such as a point-to-point connection over frame relay, and is not intended for use with NBMA configurations.

Example network-type = annex-b

Location CONNECTION:ip-options:ospf-options
HDSL2-STAT:physical-status
IP-INTERFACE:ospf
SHDSL-STAT:physical-status

ne-tx-clk-mode

Description Specifies the mode of the inverse multiplexing over ATM (IMA) group clocking.

Usage Valid values are as follows:

- `ctc` (the default)—Common transmit clock. Transmits clocks of the links within the IMA group are derived from the same clock source.
- `itc`—Independent transmit clock. Transmits clock of the links within the IMA group are derived from their respective receive clocks, as, for example, when `group-symmetry-mode` is set to `symmetric-operation`.

Example `set ne-tx-clk-mode = ctc`

Location `IMAGROUP`

ne-tx-lid

Description Specifies the transmit LID for the link.

Usage Specify a number from (0) zero to 31.

Example `set ne-tx-lid = 22`

Location `DS1-ATM:line-config:ima-option-config:txlink-config`

new-nas-port-id-format

Description Specifies whether to use the new network access server (NAS) port ID format.

Usage Valid values are as follows:

- `yes`—Specifies that the new NAS port ID format is used. This is the default.
- `no`—Specifies that the old NAS port ID is used.

Example `set new-nas-port-id-format = yes`

Location `SYSTEM`

nm-copper-loop-test-enabled

Description Read-only. Indicates the status of the copper loop test feature.

Usage Read-only parameter with the following possible values:

- `yes`—Copper loop test feature is enabled.
- `no` (the default)—Copper loop test feature is not enabled.

Example `nm-copper-loop-test-enabled= yes`

Location `BASE`

nm-navis-radius-enabled

Description Read-only. Indicates the status of the NavisRadius™ feature.

Usage Read-only parameter with the following possible values:

- `yes`—NavisRadius™ feature is enabled.

- `no` (the default)—NavisRadius™ feature is not enabled.

Example `nm-navis-radius-enabled = yes`

Location `BASE`

nm-prov

Description Read-only. Indicates the status of the Navis™ Provisioning Server for edge devices support feature.

Usage Read-only parameter with the following possible values:

- `yes`—Navis™ Provisioning Server for edge devices support feature is enabled.
- `no` (the default)—Navis™ Provisioning Server for edge devices support feature is not enabled.

Example `nm-prov = yes`

Location `BASE`

nm-prov-core

Description Read-only. Indicates the status of Navis™ Provisioning Server support for edge and core devices feature.

Usage Read-only parameter with the following possible values:

- `yes`—Navis™ Provisioning Server support for edge and core devices feature is enabled.
- `no` (the default)—Navis™ Provisioning Server support for edge and core devices feature is not enabled.

Example `nm-prov-core = yes`

Location `BASE`

nm-reporting-enabled

Description Read-only. Indicates the status of the reporting feature.

Usage Read-only parameter with the following possible values:

- `yes`—Reporting feature is enabled.
- `no` (the default)—Reporting feature is not enabled.

Example `nm-reporting-enabled = yes`

Location `BASE`

nm-vpn-enabled

Description Read-only. Indicates the status of the virtual private network (VPN) feature.

Usage Read-only parameter with the following possible values:

- `yes`—VPN feature is enabled.
- `no` (the default)—VPN feature is not enabled.

Example `nm-vpn-enabled = yes`

Location `BASE`

noattr6-use-termsrv

Description Specifies whether the unit initiates a terminal-server login if it does not receive a RADIUS `Service-Type (6)` attribute.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit initiates a terminal-server login if `Service-Type` is not received, regardless of whether `Framed-Protocol (7)` is received or not. This is the default.
- `no`—Specifies the following:
  - If `Service-Type` is not received, but `Framed-Protocol` is received, a framed-protocol login is initiated.
  - If neither `Service-Type` nor `Framed-Protocol` is received, a terminal-server login is initiated.

Example `set noattr6-use-termsrv = no`

Location `EXTERNAL-AUTH`

node-admin-status

Description Specifies the administrative status of a Private Network-to-Network Interface (PNNI) node.

Usage Valid values are as follows:

- `up` (the default)—Specifies that the node is allowed to become active.
- `down`—Specifies that the node is forced to become inactive.

Example `set node-admin-status = up`

Location `PNNI-NODE-CONFIG`

node-atm-address

Description Specifies the network service access point (NSAP) ATM address that identifies the Stinger unit as a node within a Private Network-to-Network Interface (PNNI) network.

Usage Remote systems that exchange PNNI protocol packets with the node direct packets or calls to this address.

Example
```
set node-atm-address =
39:84:0f:80:01:bc:72:00:01:d0:6a:96:00:ff:d0:6a:96+
```

Location PNNI-NODE-CONFIG

node-complex-rep

Description Enables or disables complex node representation in Private Network-to-Network Interface (PNNI) network. Complex representation provides information omitted in simple representation, but slows transmission.

Usage Valid values are as follows:

- `true`—Complex node representation is used.
- `false` (the default)—Simple node representation is used.

Example `set node-complex-rep = true`

Location PNNI-NODE-CONFIG

node-domain-name

Description Specifies the name of the Private Network-to-Network Interface (PNNI) routing domain.

Usage All lowest-level PNNI nodes with the same domain name are presumed to be connected.

Example `set node-domain-name = segundo`

Location PNNI-NODE-CONFIG

node-id

Description Specifies a number that identifies a Private Network-to-Network Interface (PNNI) node within a peer group.

Usage If both this parameter and the `node-peer-group-id` parameter have the default value of zero, the system derives the PNNI node ID from the node ATM address and other values.

Or you can manually specify a 22-byte, 44-digit hexadecimal number as a node ID.

Example `set node-id = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00+`

Location PNNI-NODE-CONFIG

node-index

Description Specifies the Private Network-to-Network Interface (PNNI) node index.

Usage Only node index 1 is currently supported.

Example `set node-index = 1`

Location PNNI-METRICS:metrics-index
PNNI-NODE-CONFIG

PNNI-ROUTE-TNS
PNNI-SUMMARY-ADDR:addr-index

node-level

Description Specifies the Private Network-to-Network Interface (PNNI) routing-level indicator.

Usage Specify a number from 0 to 104, representing the level of the PNNI hierarchy at which this node exists.

Example `set node-level = 96`

Location PNNI-NODE-CONFIG

node-lowest

Description Enables or disables lowest-level node status for a Private Network-to-Network Interface (PNNI) node.

Usage Valid values are as follows:

- `true` (the default)—Specifies that the node is a lowest-level node.
- `false`—*The `false` setting is not currently supported.*

Example `set node-lowest = true`

Location PNNI-NODE-CONFIG

node-peer-group-id

Description Specifies a number used to group nodes into a Private Network-to-Network Interface (PNNI) peer group.

Usage All members of the same PNNI peer group have the same peer group ID. If both this parameter and the `node-id` parameter have the default value of zero, the system derives the PNNI peer group ID from the Asynchronous Transfer Mode (ATM) node address and other values.

Or you can manually specify a 14-byte, 28-digit hexadecimal number as a peer group ID.

Example `set node-peer-group-id = 00:00:00:00:00:00:00:00:00:00:00:00:00:00`

Location PNNI-NODE-CONFIG

node-restricted-transit

Description Specifies whether to enable or disable support of switched virtual channels (SVCs) transiting the node.

Usage Valid values are as follows:

- `true`—The node prevents the transit of SVCs.

- `false` (the default)—The node allows transit of SVCs.

Example `set node-restricted-transit = false`

Location `PNNI-NODE-CONFIG`

noise-margin-down

Description Read-only. Indicates the current downstream noise margin of the asymmetric digital subscriber line (ADSL) in decibels (dB).

Usage The `noise-margin-down` value is read-only.

Example `noise-margin-down = 6`

Location `AL-DMT-STAT:physical-statistic`

noise-margin-up

Description Read-only. Indicates the current upstream noise margin of the asymmetric digital subscriber line (ADSL) in decibels (dB).

Usage The `noise-margin-up` value is read-only.

Example `noise-margin-up = 6`

Location `AL-DMT-STAT:physical-statistic`

non-multicast

Description Specifies whether all multicast packets are remapped to a directed neighbor address.

Usage Valid values are as follows:

- `yes`—Specifies that all multicast packets are remapped to a directed neighbor address, enabling adjacencies to form between neighbors. This setting is ignored on Ethernet (a broadcast network). Its use is not recommended for unnumbered interfaces. If you specify it for a nonnumbered interface, the Stinger unit drops the packets.
- `no` (the default)—Specifies that multicast packets are not remapped to a directed neighbor address.

Example `set non-multicast = yes`

Location `CONNECTION:ip-options:ospf-options`
`IP-INTERFACE:ospf`

non-real-time-vbr

Description Enables and disables variable bit rate (VBR)-nonreal time traffic in the queue containing this parameter.

Usage Valid values are as follows:

- yes—This queue supports ATM VBR-nonreal time traffic.
- no—The queue does not support VBR-nonreal time traffic. This is the default.

Example `set non-real-time-vbr = no`

Dependencies For each queue, one or more ATM services categories can be set to yes. The non-real-time-vbr parameter must be set to yes for at least one and no more than two of the active queues assigned to a line interface module (LIM), control module, or trunk module.

Location SWITCH-CONFIG:atm-parameters:outgoing-queue

notification-log-age-out

Description Specifies the number of minutes that an SNMP trap (notification) is kept in a log before it is automatically removed.

Usage Specify a number from 0 to 2147483647. The default is 1440 (24 hours). If you specify 0 (zero), a notification is kept in a log indefinitely.

Example `set notification-log-age-out = 2880`

Location SNMP

notification-log-enable

Description Specifies whether SNMP traps (notifications) for this profile are to be logged.

Usage Valid values are as follows:

- yes—Enables logging.
- no (the default)—Disables logging.

Example `set notification-log-enable = yes`

Location TRAP

notification-log-limit

Description Specifies the maximum number of trap (notification) entries that can be held in the SNMP notification log.

Usage Specify a number from 1 to 500. The default is 50.

Example `set notification-log-limit = 100`

Location TRAP

notify-tag-list

Description Specifies the tag list that is specified by the tag parameter value in each occurrence of the snmpv3-notification profile.

Usage Specify the `tag` value(s) you specified in one or more `snmpv3-notification` profiles.

Example `set notify-tag-list = default1`

Location `TRAP`

notify-view-name

Description Specifies the name of a view for notify access in a view-based access control model (VACM).

Usage Specify a name of up to 32 characters. If a request that matches the access properties specified in this profile uses this name, read access is granted.

Example `set notify-view-name = notify1`

Location `VACM-ACCESS`

no-trunk-alarm

Description Enables or disables setting an alarm relay when no trunk is available.

Usage Valid values are as follows:

- `no` (the default)—Does not set an alarm relay when no trunk is available.
- `yes`—Sets an alarm relay when no trunk is available.

Example `set no-trunk-alarm = yes`

Location `SYSTEM`

ntr-enabled

Description Enables or disables network time reference (NTR) functionality.

Usage Valid values are as follows:

- `no`—Disables NTR functionality. This is the default.
- `yes`—Enables NTR functionality.

Example `set ntr-enabled = yes`

Dependencies If `unit-type` is `coe` (central office equipment), the system clock signal is used as the input and the customer premises equipment (CPE), if equipped to do so, can recover the clock.

If `unit-type` is `cpe`, the port outputs the recovered clock signal as the system clock if `clock-source` is set to `eligible` and `clock-priority` is set so that the clock can be selected.

Location `HDSL2:line-config`
`SHDSL:line-config`

number-of-channels

Description Read-only. Indicates the number of channels in this protection group.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `number-of-channels = 2`

Location `APS-STAT`

num-digits-trunk-groups

Description Specifies the number of digits to allow for trunk groups.

Usage Specify a number from 1 to 4:

- When you accept the default of 1, trunk-group numbers range from 2 to 9, and the dial-out telephone number is preceded by a single-digit number.
- If `num-digits-trunk-groups` is set to 2, 3, or 4, the range of trunk-group numbers can include the specified number of digits (up to 9999), and the dial-out telephone number is always preceded by that number of digits.

  For example, if you set `num-digits-trunk-groups` to 2, and you want the device to dial the number 555-1212 on trunk 7, the dial-out telephone string is 075551212.

Example `set num-digits-trunk-groups = 2`

Dependencies Consider the following:

- When the Stinger unit is configured to interoperate with an external application for dial-out, the external system and the Stinger unit must agree about the number of digits in a trunk-group number. Otherwise, telephone numbers are not parsed correctly and calls fail.
- `use-trunk-groups` must be set to `yes` for `num-digits-trunk-groups` to have an effect.

Location `SYSTEM`

num-sec-invalid

Description Read-only. Indicates how many error seconds were detected during the continuous bit error-rate test (BERT).

Usage The `num-sec-invalid` value is read-only.

Location `AL-DMT-STAT:physical-status`

num-sec-valid

Description Read-only. Indicates how many seconds were error-free during the continuous bit error-rate test (BERT).

Usage The `num-sec-valid` value is read-only.

Location AL-DMT-STAT:physical-status

nvram-was-rebuilt

Description Read-only. Indicate nonvolatile RAM (NVRAM) rebuild status.

Usage Read-only parameter with one of the following values:

- no—NVRAM was not rebuilt.
- yes—NVRAM was rebuilt.

Example nvram-was-rebuilt = yes

Location SYSTEM

O

oam-address

Description Specifies information about the ATM interface on which a test is carried out.

Usage Specify shelf, slot, port, vpi, and vci values. The shelf number is always 1 (one).

- When you specify 0 (zero) for the port value, the tests are performed on all ports on the specified slot.
- When you specify 32768 for the vpi value, the tests are performed for all virtual path identifiers (VPIs) on the specified slot and port.
- When you specify 32768 for the vci value, the tests are performed for all virtual channel identifiers (VCIs) on the specified slot and port.
- When you specify 32769 for the vci value, an F4 test is performed. For F5 testing, you must specify a vci value greater than 31.

Example The following example specifies that a test is to be performed on the ATM interface port 5 in slot 3, with VPI 4, and VCI 5:

```
admin> set oam-address = {{1 3 5}4 2}
admin> list oam-address
[in ATM-OAM/{ { shelf-1 slot-3 5 } 4 2 }:oam-address (new) (changed)]
physical-address = { shelf-1 slot-3 5 }
vpi = 4
vci = 2
```

Location OAM-ADDRESS

oam-ais-f5

Description oam-ais-f5 *is not supported with the current software version.*

Location CONNECTION:atm-options
CONNECTION:atm-connect-options

oam-support

Description Enables or disables F4 or F5 operations, administration, and maintenance (OAM) support on a virtual path connection (VPC).

Usage Valid values are as follows:

- `yes` (the default)
- `no`

Example `set oam-support = yes`

Dependencies

- Set the `oam-support` parameter to `yes` and the `vp-switching` parameter to `yes` to enable F4 OAM support on the VPC.
- Set the `oam-support` parameter to `no` and the `vp-switching` parameter to `yes` to disable F4 OAM support on the VPC.
- Set the `oam-support` parameter to `yes` and the `vp-switching` parameter to `no` to enable F4 and F5 OAM support and end-to-end functionalities on the VPC.
- Set the `oam-support` parameter to `no` and the `vp-switching` parameter to `no` to disable F5 OAM support and enable F4 OAM support and end-to-end functionalities on the VPC.

Location `CONNECTION:atm-connect-options`
`CONNECTION:atm-options`

oam-timeout-trap-enabled

Description Enables or disables an operations, administration, and maintenance (OAM) trap.

Usage Valid values are as follows:

- `yes`—Enables the OAM trap.
- `no` (the default)—Disables the OAM trap.

Example `set oam-timeout-trap-enabled = yes`

Location `TRAP`

offset

Description Specifies a byte offset from the start of a packet to the start of the data in the packet to be tested in the generic filter. The packet data is compared to the value setting specified in the filter.

If the current filter is linked to the previous one (if `more` is set to `yes` in the previous filter), the offset starts at the end point of the previous segment.

Usage Specify a number from 0 to 8. The default is 0 (zero), which indicates no offset.

Example `set offset = 2`

Dependencies This setting applies only if the type parameter in the `input-filter` or `output-filter` subprofile is set to `generic-filter`.

Location `FILTER:input-filters[n]:gen-filter`
`FILTER:output-filters[n]:gen-filter`

oif-anomalies-counter

Description Indicates the number of out-of-IMA-frame (OIF) anomalies in inverse multiplexing over ATM (IMA), except during severely-errored-seconds IMA (SES-IMA) or unavailable seconds IMA (UAS-IMA) conditions, in the current 15-minute interval.

Usage The valid range for this read-only value is from 0 (zero) to 2147483647.

Example `oif-anomalies-counter = 213`

Location `DS1-ATM-STAT:ima-link-statistic`

old-call-filter

Description Specifies the number of the filter used to determine if a packet should cause the idle timer to be reset.

Usage Specify a numeric value in a range of 0 (zero) to 32. The default is 0.

Example `set old-call-filter = 4`

Location `CONNECTION:session-options`

old-data-filter

Description Specifies the number of the filter used to determine if packets should be forwarded or dropped.

Usage Specify a numeric value in a range of 0 (zero) to 32. The default is 0.

Example `set old-data-filter = 4`

Location `CONNECTION:session-options`

only-one-correction

Description Enables or disables use of only one instead of many switching fabric corrections.

Usage Valid values are as follows:

- `yes` (the default)—Switching fabric corrections can occur only once. One correction is recommended.
- `no`—Switching fabric corrections can occur many times.

Example `set only-one-correction = no`

Location SYSTEM-INTEGRITY:integrity-config

operational-count

Description Read-only. Indicates the number of devices that are in the UP state.

Usage The operational-count setting is read-only.

Example operational-count = 10

Location DEVICE-SUMMARY

operational-mode

Description Read-only. Indicates the mode in which the modem operates as automatically detected or as set by user.

Usage Valid values for this read-only parameter are as follows:

- ansi-dmt
- g.lite
- g.dmt
- unknown

Example operational-mode = g.lite

Location AL-DMT-STAT:physical-status

operational-rate

Description Read-only. Indicates the data rate for the symmetrical interface to which this parameter applies.

Usage The data rate is currently fixed at 1.544Mbps.

Example operational-rate = 1544000

Location HDSL2-STAT:physical-status
SHDSL-STAT:physical-status

oper-status

Description Read-only. Indicates the operational status of the reachable address and whether it is being advertised by this Private Network-to-Network Interface (PNNI) node.

Usage Valid values for this read-only parameter are as follows:

- inactive—The prefix is not reachable.
- active—The prefix is reachable and is not being advertised in PNNI.
- advertised—The prefix is reachable and is being advertised in PNNI.

Example oper-status = inactive

Location PNNI-ROUTE-ADDR

organization-minus-1

Description *Not used.* Specifies a number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the organization-minus-one scope.

Usage Specify a number from 0 to 104. The default value is 72.

Location PNNI-NODE-CONFIG:node-scope-mapping

organization-plus-1

Description *Not used.* Specifies the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the organization-plus-one scope.

Usage Specify a number from 0 to 104. The default value is 64.

Location PNNI-NODE-CONFIG:node-scope-mapping

originate-advert

Description Specifies whether or not the reachable address is to be advertised by the local node into its Private Network-to-Network Interface (PNNI) routing domain.

Usage Valid values are as follows:

- `true` (the default)—The local node advertises reachability of the address into the routing domain.
- `false`—The local node does not advertise the reachable address.

Example `set originate-advert = true`

Location PNNI-ROUTE-ADDR

ospf-approaching-overflow-enabled

Description Enables or disables trap (notification) generation if the number of link state advertisements (LSAs) in the router's link-state database has exceeded 90 percent of `OSPFExtLsdbLimit` (OSPF trap 15).

Usage Specify one of the following settings:

- `yes`—Enables generation of OSPF trap 15.
- `no` (the default)—Disables generation of OSPF trap 15.

Example `set ospf-approaching-overflow-enabled = yes`

Location TRAP

ospf-ase-pref

Description Specifies the preference value for Open Shortest Path First (OSPF) routes that the router learns about by means of Routing Information Protocol (RIP), Internet Control Message Protocol (ICMP), or another non-OSPF protocol.

When choosing the routes to put in the routing table, the router first compares their preference values, preferring the lowest number. If the preference values are equal, the router compares the metric values, using the route with the lowest metric.

Usage Specify a number from 0 through 255. A value of 255 prevents the use of the route. Following are the default preferences for different types of routes:

- 0 (zero)—Connected routes
- 10—OSPF routes
- 30—Routes learned from ICMP redirects
- 100—Routes learned from RIP
- 100—Static routes

Example `set ospf-ase-pref = 100`

Location IP-GLOBAL

ospf-enabled

Description Enables or disables generation of Open Shortest Path First (OSPF) traps (notifications) to signal the occurrence of any of the following events:

- OspfIfConfigError
- OspfIfAuthFaulure
- OspfIfStateChange
- OspfIfRxBadPacket
- OspfTxRetransmit
- OspfNbrStateChange
- OspfVirtIfStateChange
- OspfVirtIfRxBadPacket
- OspfVirtIfTxRetransmit
- OspfVirtNbrStateChange
- OspfOriginateLsa
- OspfMaxAgeLsa
- OspfLsdbOverflow
- OspfLsdbApproachingOverflow

Usage Valid values are as follows:

- yes—Specifies that trap generation depends on whether the specific OSPF trap is enabled.
- no (the default)—Specifies that OSPF traps are generated regardless of individual OSPF trap settings in the profile.

Example `ospf-enabled = yes`

Location TRAP

ospf-if-config-error-enabled

Description Enables or disables trap (notification) generation if a packet has been received on a nonvirtual interface from a router whose configuration conflicts with this router's configuration (OSPF trap 4).

Usage Valid values are as follows:

- `yes`—Specifies that OSPF trap 4 is generated if a packet has been received on a nonvirtual interface from a router whose configuration conflicts with this router's configuration.
- `no` (the default)—Specifies that OSPF trap 4 is not generated if a packet has been received on a nonvirtual interface from a router whose configuration conflicts with this router's configuration.

Example `set ospf-if-config-error-enabled = yes`

Dependencies The event `optionMismatch` causes a trap only if it prevents an adjacency from forming.

Location TRAP

ospf-if-rx-bad-packet

Description Enables or disables trap (notification) generation if an Open Shortest Path First (OSPF) packet has been received on a nonvirtual interface that cannot be parsed (OSPF trap 8).

Usage Valid values are as follows:

- `yes`—Specifies that OSPF trap 8 is generated if an OSPF packet has been received on a nonvirtual interface that cannot be parsed.
- `no` (the default)—Specifies that OSPF trap 8 is not generated if an OSPF packet has been received on a nonvirtual interface that cannot be parsed.

Example `set ospf-if-rx-bad-packet = yes`

Location TRAP

ospf-if-state-change-enabled

Description Enables or disables trap (notification) generation if the state of a nonvirtual Open Shortest Path First (OSPF) interface has changed (OSPF trap 16). This trap is generated when the interface state regresses (for example, goes from `Dr` to `Down`) or progresses to a terminal state (`Point-to-Point`, `DR Other`, `Dr`, or `Backup`).

Usage Valid values are as follows:

- `yes`—Specifies that OSPF trap 16 is generated if the state of a nonvirtual OSPF interface has changed.

- no (the default)—Specifies that OSPF trap 16 is not generated if the state of a nonvirtual OSPF interface has changed.

Example `set ospf-if-state-change-enabled = yes`

Location TRAP

ospf-lsdb-overflow-enabled

Description Enables or disables trap (notification) generation if the number of link state advertisements (LSAs) in the router's link-state database has exceeded OSPFExtLsdbLimit (OSPF trap 14).

Usage Valid values are as follows:

- yes—Specifies that OSPF trap 14 is generated if the number of LSAs in the router's link-state database has exceeded OSPFExtLsdbLimit.
- no (the default)—Specifies that OSPF trap 14 is not generated if the number of LSAs in the router's link-state database has exceeded OSPFExtLsdbLimit.

Example `ospf-lsdb-overflow-enabled = yes`

Location TRAP

ospf-maxagelsa-enabled

Description Enables or disables trap (notification) generation if a link state advertisement (LSA) in the router's link-state database has aged to MaxAge (OSPF trap 13).

Usage Specify one of the following settings:

- yes—Specifies that OSPF trap 13 is generated if an LSA in the router's link-state database has aged to MaxAge.
- no (the default)—Specifies that OSPF trap 13 is not generated if an LSA in the router's link-state database has aged to MaxAge.

Example `ospf-maxagelsa-enabled = yes`

Location TRAP

ospf-max-lsa

Description Specifies the maximum number of link state advertisements (LSAs) allowed in the link-state database.

Usage Specify a number from 0 through 4294967295. The default setting is 0.

Example `set ospf-max-lsa = 10`

Location IP-GLOBAL

ospf-nbr-state-change-enabled

Description Enables or disables trap (notification) generation if the state of a nonvirtual Open Shortest Path First (OSPF) neighbor has changed (OSPF trap 2).

Usage Valid values are as follows:

- `yes`—Specifies that OSPF trap 2 is generated if the state of a nonvirtual OSPF neighbor has changed.
- `no` (the default)—Specifies that OSPF trap 2 is not generated if the state of a nonvirtual OSPF neighbor has changed.

Example `ospf-nbr-state-change-enabled = yes`

Dependencies OSPF trap 2 is generated when the neighbor state regresses (for example, changes from `Attempt` or `Full` to `1-Way` or `Down`) or progresses to a terminal state (for example, `2-Way` or `Full`). When a neighbor transitions from or to `Full` on nonbroadcast multiaccess (NBMA) and broadcast networks, the trap is generated by the designated router. A designated router transitioning to `Down` is noted by `OSPFIfStateChange`.

Location `TRAP`

ospf-originatelsa-enabled

Description Enables or disables trap (notification) generation if a new link state advertisement (LSA) has been originated by this router due to a topology change (OSPF trap 12).

Usage Valid values are as follows:

- `yes`—Specifies that the unit generates OSPF trap 12 if a new LSA has been originated by this router due to a topology change.
- `no` (the default)—Specifies that the unit does not generate OSPF trap 12 if a new LSA has been originated by this router due to a topology change.

Example `set ospf-originatelsa-enabled = yes`

Location `TRAP`

ospf-pref

Description Specifies the preference for routes that the router learns about by means of the Open Shortest Path First (OSPF) protocol.

When choosing the routes to put in the routing table, the router first compares their preference values, preferring the lowest number. If the preference values are equal, the router compares the metric values, using the route with the lowest metric.

Usage Specify a number from `0` through `255`. A value of `255` prevents the use of the route. Following are the default preferences for different types of routes:

- `0` (zero)—Connected routes
- `10`—OSPF routes

- 30—Routes learned from Internet Control Message Protocol (ICMP) redirects
- 100—Routes learned from Routing Information Protocol (RIP)
- 100—Static routes
- 100—Ascend Tunnel Management Protocol (ATMP) routes

Example `set ospf-pref = 10`

Location IP-GLOBAL

ospf-set-trap

Description Enables/disables open shortest path first (OSPF) traps. This parameter can be set using Simple Network Management Protocol (SNMP).

Usage Specify a hexadecimal value of 4 bytes.

Example `set ospf-set-trap = 00:00:00:00`

Location OSPF-GLOBAL

ospf-tx-retransmit-enabled

Description Enables or disables trap (notification) generation if an Open Shortest Path First (OSPF) packet has been retransmitted on a nonvirtual interface (OSPF trap 10). All packets that are retransmitted are associated with a link-state database (LSDB) entry. The LS type, LS ID, and Router ID are used to identify the LSDB entry.

Usage Valid values are as follows:

- yes—Specifies that the unit generates OSPF trap 10 if an OSPF packet has been retransmitted on a nonvirtual interface.
- no (the default)—Specifies that the unit does not generate OSPF trap 10 if an OSPF packet has been retransmitted on a nonvirtual interface.

Example `set ospf-tx-retransmit-enabled = yes`

Location TRAP

ospf-virt-if-rx-bad-packet

Description Enables or disables trap (notification) generation if an Open Shortest Path First (OSPF) packet has been received on a virtual interface that cannot be parsed (OSPF trap 9).

Usage Valid values are as follows:

- yes—Specifies that the unit generates OSPF trap 9 if an OSPF packet has been received on a virtual interface that cannot be parsed.
- no (the default)—Specifies that the unit does not generate OSPF trap 9 if an OSPF packet has been received on a virtual interface that cannot be parsed.

Example `set ospf-virt-if-rx-bad-packet = yes`

Location TRAP

ospf-virt-if-state-change-enabled

Description Enables or disables trap (notification) generation if the state of an Open Shortest Path First (OSPF) virtual interface has changed (OSPF trap 1).

Usage Valid values are as follows:

- yes—Specifies that the unit generates OSPF trap 1 if the state of an OSPF virtual interface has changed.
- no (the default)—Specifies that the unit does not generate OSPF trap 1 if the state of an OSPF virtual interface has changed.

Example `set ospf-virt-if-state-change-enabled = yes`

Location TRAP

ospf-virt-if-tx-retransmit-enabled

Description Enables or disables trap (notification) generation if an Open Shortest Path First (OSPF) packet has been retransmitted on a virtual interface (OSPF trap 11). All packets that are retransmitted are associated with a link-state database (LSDB) entry. The LS type, LS ID, and Router ID are used to identify the LSDB entry.

Usage Valid values are as follows:

- yes—Specifies that the unit generates OSPF trap 11 if an OSPF packet has been retransmitted on a virtual interface.
- no (the default)—Sspecifies that the unit does not generate OSPF trap 11 if an OSPF packet has been retransmitted on a virtual interface.

Permission level `set ospf-virt-if-tx-retransmit-enabled = yes`

Location TRAP

ospf-virt-nbr-state-change-enabled

Description Enables or disables trap (notification) generation if the state of an Open Shortest Path First (OSPF) virtual neighbor has changed (OSPF trap 3).

Usage Valid values are as follows:

- yes—Specifies that the unit generates OSPF trap 3 if the state of an OSPF virtual neighbor has changed.
- no (the default)—Specifies that the unit does not generate OSPF trap 3 if the state of an OSPF virtual neighbor has changed.

Example `set ospf-virt-nbr-state-change-enabled = yes`

Location TRAP

out-defect-int-time

Description Specifies the time, in milliseconds, that must elapse before the FAILED state condition can be turned off for the receiving link of an inverse multiplexing over ATM (IMA) connection.

If the NO DEFECT condition persists for this time, the link leaves the FAILED state.

Usage Valid values are from 0 (zero) to 2147483647. The default is 10000.

Example `set out-defect-int-time = 10000`

Location `DS1-ATM:line-config:ima-option-config:rxlink-config`

outgoing-cells

Description Read-only. Indicates the number of outgoing cells in an asymmetric digital subscriber (ADSL) line.

Usage The `outgoing-cells` value is read-only.

Example `outgoing-cells = 100`

Location `AL-DMT-STAT:physical-statistic`

out-of-cell-delineation

Description Read-only. Indicates whether the device is receiving a far-end loss-of-frame signal, also known as a *Yellow Alarm*.

Usage The `out-of-cell-delineation` value is read-only. Valid values are as follows:

- `true`—Indicates that the device is receiving a far-end loss-of-frame signal.
- `false`—Indicates that the device is not receiving a far-end loss-of-frame signal.

Example `out-of-cell-delineation = false`

Location `OC3-ATM-STAT`

out-of-frame

Description Read-only. Indicates whether the local line is connected and in frame.

Usage Valid values are as follows:

- `true` —Indicates that near end is out of frame.
- `false` —Indicates that the line is connected and in frame.

Example `out-of-frame = false`

Location `OC3-ATM-STAT`

output-power-down

Description Read-only. Indicates the current downstream aggregate power level in decibels (dB).

Usage The `output-power-down` value is read-only.

Example `output-power-down = 19`

Location `AL-DMT-STAT:physical-statistic`

output-power-up

Description Read-only. Indicates the current upstream aggregate power level in decibels (dB).

Usage The `output-power-up` value is read-only.

Example `output-power-up = 19`

Location `AL-DMT-STAT:physical-statistic`

override-delay

Description Specifies the number of seconds a Private Network-to-Network Interface (PNNI) node waits for itself to be declared the preferred peer group leader (PGL) by unanimous agreement among its peers.

When unanimous agreement is not reached, `override-delay` specifies the number of seconds that must pass before the node considers a two-thirds majority as sufficient agreement to declare itself peer group leader, abandoning the attempt to get unanimous agreement.

Usage Specify the number of seconds. The default is 30.

Example **`set override-delay = 50`**

Location `PNNI-NODE-CONFIG:node-pgl`

override-interval

Description A delay interval, in milliseconds, used to randomize when scheduling a delayed join message.

Usage The valid range is from 1 to 65535 with a default value of 2500 milliseconds.

Example **`set override-interval = 1000`**

Location `IP-INTERFACE:pim-options`
`CONNECTION:ip-options:pim-options`

over-subscription

Description Specifies the allowed oversubscription to the line rate for connection admission control (CAC).

Oversubscription modifies the allowed bandwith on a port. The allowed bandwidth on a trunk port is equal to `line-rate` multiplied by `over-subscription` divided by 10 (`line-rate * over-subscription/ 10`).

Usage Valid values range from 0 (zero) to 10240. The default value is 10. Consider the following:

- The default value (10) limits the port to accept only connections that do not exceed `line-rate`.
- Values between 1 and 9 limit the allowed bandwidth to a value less than `line-rate`.
- A value of 0 (zero) disables the port from taking part in any CAC. The bandwidth is advertised as 0.

Example `set over-subscription = 50`

Location `HIGH-SPEED-SLOT-STATIC-CONFIG:trunk-cac-config`

Note This parameter was previously located in the `atm-config` profile. Its use in that location has been deprecated.

over-temperature

Description Indicates whether the cabinet temperature exceeds the threshold.

Usage This parameter is read-only. Valid values are as follows:

- `yes`—The cabinet temperature exceeds the threshold.
- `no` (the default)—The cabinet temperature is within acceptable limits.

Example `over-temperature = no`

Location `REMOTE-SHELF-STAT`

P

pair

Description Read-only. Indicates identity and reboot statistics for the other controller in this context.

Usage Read-only, complex field.

Example `pair = { 9487770 }`

Location `REDUNDANCY-STATS:context-stats`

parallel-dialing

Description Specifies the number of Call-Setup requests the system sends to the network side at any given time.

If the system is processing the maximum number of calls when it receives a new call request, it queues the request and processes it after the network side sends a call-proceeding message for a previous request.

Usage Specify an integer from 1 to 64. The default is 12. Consider the following:

- If the Stinger unit has trouble establishing an initial connection at the full bandwidth for calls from the U.S. to another country, reduce `parallel-dialing` to a value of 1.
- For ADSL or SDSL operation, you must set `parallel-dialing` to the number of ADSL or SDSL interfaces.

Example `set parallel-dialing = 12`

Location `SYSTEM`

parent-node-index

Description Specifies the number identifying the node that will represent this peer group at the next higher routing level, if this node becomes peer group leader (PGL).

Usage The default 0 (zero) value indicates that no parent node exists.

Example `set parent-node-index = 0`

Location `PNNI-NODE-CONFIG:node-pgl`

partial-packet-discard

Description Specifies whether the remaining cells in a packet (except the last cell) are to be discarded if buffers become congested after some cells of a packet have been queued.

Usage Valid values are as follows:

- `yes`—Specifies that the remaining cells in a packet (except the last cell) are discarded if buffers become congested after some cells of a packet have been queued. In addition, if congestion occurs when the unit is receiving the last cell of a packet, it discards the entire next packet. Partial packet discard (PPD) relies on a higher layer to reject the partial packet when it is received.
- `no` (the default)—Specifies that none of the remaining cells in a packet are discarded if buffers become congested after some cells of a packet have been queued.

Dependencies This parameters applies only to ATM adaptation layer 5 (AAL5) circuits.

Location `ATM-QOS`

password

Description Specifies a password.

- In a `user` profile, the `password` setting specifies a password that the user must enter to log in.
- In a `tunnel-options` subprofile configured for Ascend Tunnel Management Protocol (ATMP), the `password` setting specifies the password that a Foreign Agent must supply to establish a tunnel with the Stinger router module.
- In an `snmpv3-usm-user` profile, the `password` setting specifies the user's password, which maps to a 16-octet or 20-octet key, in compliance with RFC 2574.

Usage Specify a text string of up to 20 characters. The default is null. The value you enter is case sensitive.

Note In an `snmpv3-usm-user` profile, you can include special characters by using the *\xNN* format with the ASCII code for the character. For example, the value `test\x20\x21` represents the following string:

```
test !
```

Example `set password = unit`

Dependencies Consider the following:

- You must set `agent-mode` to `home-agent` for the `password` setting to apply in a `tunnel-options` subprofile.
- In an `snmpv3-usm-user` profile, you must specify a password if the `auth-protocol` setting is a value other than `no-auth`.

Location `ATMP`
`CONNECTION:tunnel-options`
`SNMPV3-USM-USER`
`USER`

password-enabled

Description Specifies whether all failed Telnet login attempts generate a trap (notification).

Usage Valid values are as follows:

- `yes`—Specifies that all failed Telnet login attempts generate a trap. This is the default.
- `no`—Specifies that failed Telnet login attempts do not generate a trap.

Example `set password-enabled = no`

Dependencies When `password-enabled` is set to `yes`, you must also set `security-enabled` to `yes` for all failed Telnet login attempts to generate a trap.

Location `TRAP`

password-for-direct-access

Description *Not used.*

Location TERMINAL-SERVER:dialout-configuration

password-prompt

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration

path-state

Description Read-only. Indicates the state of the synchronous optical network (SONET) path.

Usage The path-state value is read-only.

Example path-state = sonet-path-active-no-defect

Location OC3-ATM-STAT

pattern-test-status

Description Read-only. Indicates the result of the pattern test.

Usage The pattern-test-status value is read-only. Valid values are as follows:

- none—Indicates that no pattern test has been run on this link.
- in-sync—The pattern test indicates that the line is synchronized.
- lost-sync—The pattern test indicates that the line has lost synchronization.

Location DS1-ATM-STAT

p-bit-error-count

Description Read-only. Indicates the number of P-bit parity errors received in Asynchronous Transfer Mode (ATM) error-checking since the last time the unit was reset.

P-bit errors indicate that the unit received a P-bit code on the DS3 M-frame that differs from the locally calculated code.

Usage The p-bit-error-count value is read-only.

Example p-bit-error-count = 0

Location DS3-ATM-STAT
E3-ATM-STAT

pcm-mode

Description *Not currently used.* Specifies the number of active channels in a pulse code modulation (PCM) highway.

Usage Valid values are the following:

- `isdn`—Use 23 channels to carry the cells.
- `clear-channel` (the default)—Use 24 channels to carry the cells.

Example `set pcm-mode = isdn`

Location `DS1-ATM:line-config`

peak-cell-rate-cells-per-sec

Description Read-only. Indicates peak cell rate (PCR), which is the maximum number of cells allowed per second.

Usage The value is read-only. The PCR is calculated from the `peak-rate-kbits-per-sec` setting and used in the internal Asynchronous Transfer Mode (ATM) configuration.

Example `peak-cell-rate-cells-per-sec = 37`

Location `ATM-QOS`

peak-rate

Description Specifies the maximum effective bit rate allowed, in kilobits per second.

The Stinger unit verifies that the `peak-rate` value of a shaper does not exceed the effective line rate.

Usage The valid range is 1 through 135631. The default is 1000 (1Mbps).

Example `set peak-rate = 15000`

Location `SYSTEM:traffic-shapers`
`ATM-INTERNAL:traffic-shapers` *n*

peak-rate-kbits-per-sec

Description Specifies the peak bit rate per second in kilobits per second.

Usage Specify a value within the range from 0 to 148598Kbps. The default value is 16Kbps. Use a value that is appropriate for the type of traffic, as follows:

- For constant bit rate (CBR) traffic, specify the static bit rate.
- For available bit rate (ABR), specify the maximum explicit rate.
- For variable bit rate (VBR), specify the upper boundary of the variable bit rate.

Example `set peak-rate-kbits-per-sec = 20`

Location ATM-QOS

peer-delayed-ack-interval

Description In Private Network-to-Network Interface (PNNI), specifies the minimum amount of time between transmissions of delayed PNNI topology state element (PTSE) acknowledgement packets.

Usage Specify an integer in 100ms units. The default is 10.

Example `set peer-delayed-ack-interval = 10`

Location PNNI-NODE-CONFIG:node-timer

perm-conn-upd-mode

Description Specifies under what circumstances the Stinger unit performs nonintrusive remote updates of the configurations of permanent connections.

Usage Valid values are as follows:

- `all` (the default)—Specifies that, if they are fetched from the RADIUS server, all existing permanent connections are torn down and reestablished following the update. This setting causes a service interruption every time any dedicated (nailed profile is updated or added.
- `changed`—Specifies that only changed permanent connections are torn down and reestablished.

Example `set perm-conn-upd-mode = changed`

Location SYSTEM

pf-comp-enabled

Description *Not used.* Enables or disables protocol field compression. Asynchronous only.

Location CONNECTION:ppp-options

phone-number

Description *Not currently used.* Specifies the number the Stinger unit dials to reach the switch.

Usage Specify a telephone number of up to 24 characters, limited to the following choice of characters: 1234567890()[]!z-*|. The default is null.

Example `set phone-number = 555-1234`

Dependencies For frame relay, if a dedicated (nailed-up) data link connection is in use, `phone-number` does not apply.

Location CALL-INFO
CALL-ROUTE
FRAME-RELAY

phs-support

Description Read-only. Indicates whether support for the Personal Handyphone System (PHS) is enabled.

Usage The phs-support setting is read-only. Valid values are as follows:

- yes—Indicates that PHS support is enabled.
- no—Indicates that PHS support is disabled.

Example phs-support = yes

Location BASE

physical-address

Description Identifies the location of a physical interface or module within the Stinger unit.

This value is used by the system to retrieve the configuration of an item. The system also addresses the Asynchronous Transfer Mode (ATM) internal interface of an ISDN digital subscriber line (IDSL) or router module by a physical-address value. The address has the format {*shelf slot item*}. The elements of the address are identified as follows:

- *shelf*—Currently, in Stinger units, the shelf number is always 1.
- *slot*—Number of the slot in which the module resides.
- *item*—Number of the interface on the module. Interfaces are numbered starting with 1 for the topmost or leftmost interface on the module. An item number of 0 (zero) denotes the entire slot.

Usage The physical-address setting is a complex field consisting of shelf, slot, and item-number component settings. This value is set by the system when it creates the profile for an interface. After you configure an interface and write the profile, you can clone the configuration by modifying this value, as shown in the following example.

Example The following example modifies the slot value to copy the configured profile for a module in another slot:

```
admin> set physical-address slot = 4
```

Example To specify an alarm event that will be triggered only when it occurs on the host itself, specify shelf 1. For example:

```
admin> set physical-address shelf = shelf-1
```

Example To configure an alarm for a specific remote shelf, specify the ID of that shelf. For example, to configure an alarm for shelf 2:

```
admin> set physical-address shelf = shelf-2
```

Location This parameter appears in every profile associated with one of the system's physical interfaces:

```
ALARM
AL-DMT
AL-DMT-STAT
ATM-INTERNAL
ATM-INTERNAL-STAT
CARD-CODE
DEBUG
DS1-ATM
DS1-ATM-STAT
DS3-ATM
DS3-ATM-STAT
E3-ATM
E3-ATM-STAT
HDSL2
HDSL2-STAT
HIGH-SPEED-SLOT-STATIC-CONFIG
IDSL
IMA-GROUP-STAT
IMAHW-CONFIG
LIM-SPARING-CONFIG
LINE-DIAG
LINE-DIAG-STAT
LINE-TESTS
MODEM
OC3-ATM
OC3-ATM-STAT
REMOTE-SHELF-STAT:host-port
SDSL
SDSL-STAT
SERIAL
SHDSL
SHDSL-STAT
SLOT-STATIC-CONFIG
SWITCH-CONFIG:atm-parameters:outgoing-queue
```

ping

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

planned-bitrate-down

Description Specifies the constant bit rate for downstream traffic when operator-controlled rate-adaptive mode is in effect.

Usage Specify an integer from 0 to 1500Kbps. The default value is 1000Kbps.

Example `set planned-bitrate-down = 100`

Dependencies Consider the following:

- `planned-bitrate-down` does not apply when automatic-at-startup rate adaptation is in use on the line.
- If you set `planned-bitrate-down` to a nonzero value in one subprofile, set `planned-bitrate-down` to 0 (zero) in the other subprofile.

Location `AL-DMT:fast-path-config`
`AL-DMT:interleave-path-config`

planned-bitrate-up

Description Specifies the constant bit rate for upstream traffic when operator-controlled rate-adaptive mode is in effect.

Usage Specify an integer from 0 to 2000Kbps. The default value is 512Kbps.

Example `set planned-bitrate-up = 100`

Dependencies Consider the following:

- `planned-bitrate-up` does not apply when automatic-at-startup rate adaptation is in use on the line.
- If you set `planned-bitrate-up` to a nonzero value in one subprofile, set `planned-bitrate-up` to 0 (zero) in the other subprofile.

Location `AL-DMT:fast-path-config`
`AL-DMT:interleave-path-config`

pnni-enabled

Description Read-only. Indicates the status of the Private Network-to-Network Interface (PNNI) protocol feature.

Usage Read-only parameter with the following possible values:

- `yes` (the default)—PNNI feature is enabled.
- `no`—PNNI feature is not enabled.

Example `pnni-enabled = yes`

Location `BASE`

pnni-link-state

Description Read-only. Indicates the Private Network-to-Network Interface (PNNI) link state of the port.

Usage This parameter is read-only. Valid values are as follows:

- `not-configured`—No link state has been configured for the port.
- `up`—Link state for the port is up.
- `down`—Link state for the port is down.

Example `pnni-link-state = up`

Location `ATM-IF-STAT`

pnni-scope

Description Specifies the extent of the advertisement of reachability from the advertising Private Network-to-Network Interface (PNNI) node to the address prefix.

Usage The default value is 0.

Example **`set pnni-scope = 0`**

Location `PNNI-ROUTE-ADDR`

poll-after-retransmission

Description Specifies whether the Stinger unit sends a poll after retransmitting protocol data units (PDUs) before sending any further PDUs.

Usage Valid values are as follows:

- `yes`—Enables the poll.
- `no` (the default)—Disables the poll.

Example **`poll-after-retransmission = yes`**

Location `ATM-IF-SIG-PARAMS:qsaal-options`

poll-inact-factor

Description Number of consecutive polls on the interface for which no Integrated Local Management Interface (ILMI) response message is received before ILMI connectivity is considered lost. *ILMI is not supported with the current software version.*

Usage Specify a value from 1 to 65536. The default value is 4.

Example **`set poll-inact-factor = 12`**

Location `ATM-IF-CONFIG:extension-config`

poll-interval

Description Specifies the interval in seconds at which to send Hello packets to a neighboring router that has become inactive.

Usage Specify an integer. A value of 0 (zero) specifies that no Hello packets are sent to a neighboring router from which no Hello packets have been received for the number of seconds specified in the `dead-interval` setting. If you specify a nonzero value, use a larger value than the normal `hello-interval` default. The default value is 10.

Example **`set poll-interval = 120`**

Location CONNECTION:ip-options:ospf-options
IP-INTERFACE:ospf

pool-base-address

Description Specifies the base addresses of up to 128 IP address pools. A contiguous block of addresses must be available, starting with the address you specify.

Usage For each pool, specify the base IP address of a block of contiguous addresses. The default is 0.0.0.0.

Caution For Point-to-Point Protocol (PPP) interfaces, the Windows operating system uses a default subnet mask of /24. Therefore, if NetBIOS over IP is enabled, connected Windows users will broadcast to .255, causing a performance problem for anyone connected at that address.

Example `set pool-base-address[3] = 10.207.23.1`

Dependencies Consider the following:

- An address in a pool does not accept a subnet mask modifier, because pool addresses are advertised as host routes. If you allocate IP addresses on a separate IP network or subnet, make sure you inform other IP routers about the route to that network or subnet.
- The number of addresses in the pool must be specified by assign-count.
- If you are using network summarization (by means of the pool-summary setting), the address you specify must be network aligned.
- In a vrouter profile, the address pool is exclusive to one virtual router (VRouter). If you do not specify an address pool in a vrouter profile, virtual routers can share the address pools defined in the ip-global profile.
- If you change the value of pool-base-address to a lower number, you must reset the unit for the change to take effect.

Location IP-GLOBAL
VROUTER

pool-chaining

Description Enables or disables IP pool chaining.

Usage Valid values are as follows:

- yes—Enables pool chaining. The system treats contiguous IP address pools as a single extended pool space when searching for an available address to assign to a caller.
- no (the default)—Disables pool chaining.

Example `set pool-chaining = yes`

Dependencies Consider the following:

- Address pools must be defined either locally or in RADIUS pseudo-user profiles.

- When specified in a `vrouter` profile, address pools are exclusive to that virtual router. If address pools are not specified in a `vrouter` profile, the virtual router(s) can share the address pools defined in the `ip-global` profile.

Location `IP-GLOBAL`
`VROUTER`

pool-name[*n*]

Description Assigns a name to an IP address pool for TACACS+ authentication or virtual router (VRouter) operation.

Usage Specify a name of up to 11 characters. The default is null.

Example `set pool-name 1 = newyork`

Dependencies Consider the following:

- Each pool configuration consists of a base address (specified by `pool-base-address`), address count (specified by `assign-count`), and name (specified by `pool-name`).
- If TACACS+ authentication is not in use, the Stinger unit treats a pool name specification as a comment.
- In a `vrouter` profile, the address pool is exclusive to one virtual router. If you do not specify an address pool in a `vrouter` profile, virtual routers can share the address pools defined in the `ip-global` profile.

Location `IP-GLOBAL`
`VROUTER`

pool-ospf-adv-type

Description Specifies how to import summarized pool addresses into Open Shortest Path First (OSPF).

Usage Valid values are as follows:

- `type-1` (the default)—Instructs the Stinger unit to import the pool addresses into OSPF as external type 1 routes.
- `type-2`—Instructs the Stinger unit to import the pool addresses into OSPF as external type 2 routes.
- `internal`—Instructs the Stinger unit to import the pool addresses into OSPF as intra-area routes.

Example `set pool-ospf-adv-type = type-2`

Dependencies For `pool-ospf-adv-type` to apply, you must set `pool-summary` to `yes` and enable OSPF.

Location `IP-GLOBAL`

pool-summary

Description Sets or clears the pool summary flag. The use of pool summarization can significantly reduce the size of routing table advertisements.

When the flag is set, the Stinger unit adds IP addresses from an address pool to the routing table as individual host routes, and summarizes the series of host routes into a network route advertisement. It advertises the entire pool as a route, and only privately keeps track of the IP addresses in the pool. If a remote network sends a packet to an inactive IP address, the Stinger unit either bounces the packet back to the remote network or silently discards it.

When specified in a `vrouter` profile, address pools are exclusive to that virtual router. If address pools are not specified in a `vrouter` profile, the virtual router(s) can share the address pools defined in the `ip-global` profile.

Usage Valid values are as follows:

- `yes`—Enables pool summarization.
- `no` (the default)—Disables pool summarization.

Example
```
set pool-summary = yes
set pool-base-address[3] = 10.12.253.1
set assign-count = 62
```

Dependencies When `pool-summary` is set to `yes`, the `pool-base-address` you specify must be network aligned.

Location `IP-GLOBAL`
`VROUTER`

port

Description Specifies or indicates the port number, as follows:

- In the `tcp-clear-options` subprofile of a `connection` profile, `port` specifies the first port to which a TCP-Clear session attempts to connect. You can specify a port on up to three more login hosts with the parameters `port2`, `port3`, and `port4`.

  If the TCP connection to the first specified host-port combination fails, the system attempts to connect to the next specified host and port. If the connection to the next host-port combination fails, the system attempts to connect to the third host and port, and so forth. If all connection attempts fail, the session terminates and the Stinger unit returns a TCP connection error to the dial-in client.
- In the `terminal-server` profile, `port` specifies the port on the login host to which the user connects in immediate mode.
- In a `log` profile and `auxiliary-syslog` subprofile, `port` specifies the destination port of the `syslog` host.
- In a `vcc-members` or `vcc-ident` subprofile, `port` indicates the port number of the module that owns the virtual channel connection (VCC) on an Asynchronous Transfer Mode (ATM) link.

Usage Specify a port number. Defaults are as follows:

- For a `tcp-clear-options` subprofile of a `connection` profile, the default is 0 (zero).
- For a `terminal-server` profile, the default is 0 (zero).
- For the `log` profile, the default is 514.

For a `vcc-members` or `vcc-ident` subprofile, the `port` setting is read-only.

Dependencies Consider the following:

- The `port` value in the `log` profile affects all data streams.
- The `port` value in each `auxiliary-syslog` subprofile affects the individual data stream directed to the device specified by the `host` value, and overrides the value in the `log` profile.

Location `ATMPVC-STAT:vcc-members:vcc-members[`*n*`]`
`ATMVCC-STAT:vcc-ident`
`CONNECTION:tcp-clear-options`
`LOG`
`LOG:auxiliary-syslog:auxiliary-syslog[`*n*`]`
`TERMINAL-SERVER:immediate-mode-options`

port2
port3
port4

Description Specifies a port on up to three login hosts, in addition to the first specified by `port`, to which a TCP-Clear session attempts to connect.

You can specify one port for each of four login hosts. If the TCP connection to the first specified host-port combination fails, the system attempts to connect to the next specified host and port. If the connection to the next host-port combination fails, the system attempts to connect to the third host and port, and so forth. If all connection attempts fail, the session terminates and the Stinger unit returns a TCP connection error to the dial-in client.

Usage Specify a port number. The default is 0 (zero).

Example The following example specifies two login host-port combinations:

```
admin> read connection fred
CONNECTION/fred read
admin> set tcp-clear-options host = mercury
admin> set tcp-clear-options host2 = venus
admin> set tcp-clear-options port = 155
admin> set tcp-clear-options port2 = 256

admin> write
CONNECTION/fred written
```

Location `CONNECTION:tcp-clear-options`

port-1-shelf

Description The shelf ID of the remote shelf directly connected to the first cascade port on the host.

Usage This parameter is read-only.

Example `port-1-shelf = 1`

Location `REMOTE-SHELF-STAT:topology`

port-2-shelf

Description The shelf ID of the remote shelf directly connected to the second cascade port on the host.

Usage This parameter is read-only.

Example `port-1-shelf = 2`

Location `REMOTE-SHELF-STAT:topology`

port-activation-array

Description An array selecting a specific port or ports on a line interface module (LIM) to be isolated for galvanic isolation tests, or connected to a tone generator for multiport tone tests.

Usage Valid values are as follows:

- `yes`–Isolates the port or connects it to a tone generator.
- `no` (the default)—Does not isolate or connect the port.

Example The following commands select ports 3 and 9 for testing:

```
set port-activation 3 = yes
set port-activation 9 = yes
```

Dependencies This parameter is valid only if `specific-ports` is set to `yes`.

Location `LINE-TESTS`

port-cac-enable

Description Enable/disable connection admission control (CAC) on the line interface module's (LIM) ports.

Usage Valid values are as follows:

- `yes`—CAC on the LIM's ports is enabled.
- `no` (the default)—CAC on the LIM's ports is disabled.

Example `set port-cac-enable = yes`

Location `SLOT-STATIC-CONFIG`

port-cac-oversubscription

Description Specifies oversubscription to the port provisioned bandwidth.

Usage Integer value from 0 to 10,240. The default value is 10.

Example `set port-cac-oversubscription = 5000`

Location `SLOT-STATIC-CONFIG`

port-enabled

Description Specifies whether the Stinger unit traps changes in the state of a host interface and sends trap (notification) protocol data units (PDUs) to the Simple Network Management Protocol (SNMP) manager.

All port connections are monitored in a *state machine* and reported by means of this trap.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit sends trap PDUs to the host specified by `host-address`.
- `no`—Specifies that the Stinger unit does not send trap PDUs. This is the default.

Example `set port-enabled = yes`

Location `TRAP`

port-for-direct-access

Description *Not used.*

Location `TERMINAL-SERVER:dialout-configuration`

port-num

Description Read-only. Identifies a trunk port within the system.

Usage The `port-num` value is read-only and has a maximum of 15 characters.

Example `port-num = 1:17:1`

Location `HIGH-SPEED-SLOT-STATIC-CONFIG:trunk-cac-config`

Note This parameter was previously located in the `atm-config` profile. Its use in that location has been deprecated.

port-number

Description Specifies the port number to be redirected.

Usage Specify a numeric value in a range of 0 to 65535. The default value is 0.

Example `set port-number = 23`

Location `CONNECTION:port-redirect-options`

port-state

Description Read-only. Indicates the state of the physical port.

Usage Valid values for this read-only parameter are as follows:

- `not-configured`—The port is not configured.
- `up`—The port is in an up state.
- `down`—The port is in a down state.

Example `port-state = up`

Location `ATM-IF-STAT`

port-status

Description Read-only. An array showing the line-test status of each port on a line interface module (LIM).

Usage This array is a read-only field. A value equal to the slot number of the LIM indicates that a port is isolated or connected to a tone generator. A value of 0 indicates that a port is not isolated or connected to a tone generator.

Location `LINE-TESTS`

port-towards-host-shelf

Description The port on the remote shelf used for the link to the host.

Usage This parameter is read-only.

Example `port-towards-host-shelf = remote-shelf-cascade-port-none`

Location `REMOTE-SHELF-STAT:topology`

post-end

Description Read-only, Indicates the time at which this controller detected the end of a remote power-on self test (POST).

Usage This read-only parameter has a numeric range of 0 to 4294967295.

Example `post-end = 123`

Location `REDUNDANCY-STATS:context-stats`

post-start

Description Read-only, Indicates the time at which this controller started local power-on self test (POST).

Usage This read-only parameter has a numeric range of 0 to 4294967295.

Example `post-start = 123`

Location `REDUNDANCY-STATS:context-stats`

power-supply-enabled

Description Specifies whether the system generates a trap (notification) when a power supply module is added or removed.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when a power supply module is added or removed. This is the default.
- `no`—Specifies that the system does not generate a trap when a power supply module is added or removed.

Example `set power-supply-enabled = no`

Location `TRAP`

ppp-circuit

Description Specifies whether transparent Point-to-Point Protocol (PPP) switching is enabled on the Stinger unit.

Usage Valid values are as follows:

- `none`—Transparent PPP switching disabled. This is the default.
- `transparent`—Transparent PPP switching is enabled.

Example `set ppp-circuit = none`

Location `CONNECTION:ppp-options`

ppp-circuit-name

Description Specifies the name of a Point-to-Point Protocol (PPP) circuit.

A PPP transparent circuit consists of two linked connections. You configure the connections by setting `ppp-circuit` to `transparent`, which enables the interface to be part of the PPP circuit.

Usage Specify an ASCII string with a maximum length of 15 characters. The default is a null string. Characters are limited to the character set that is used for the frame relay circuit name. Note that encapsulation must be `ppp`. You link the connections together by specifying the same `ppp-circuit-name` value for the two connections that form the PPP circuit.

Example `set ppp-circuit-name = firstpppcircuit`

Dependencies Consider the following:

- This parameter is ineffective unless `ppp-circuit` parameter is set to `transparent`.
- For IDSL, if you do not specify a circuit name the Stinger unit creates a circuit name based on the values of the VPI, Vci, and Nailed-Group parameters set in the ATM-Connect-Options subprofile. If you specify a circuit name, it overrides the default name created by the Stinger unit.

Location `CONNECTION:ppp-options`

pppoe

Description Enables or disables processing of PPP over Ethernet (PPPoE) packets on a Stinger interface.

- When PPPoE is enabled on an interface, PPPPoE requests received on the interface are handled by the onboard PPPoE server in the router module.
- If PPPoE is not enabled on an interface and bridging is enabled, the router module bridges the PPPoE requests to an external PPPoE server.

Usage Specify `yes` or `no`. The default value is `no`.

- `no`—Enable PPPoE packet processing on the interface.
- `yes`—Disable PPPoE packet processing on the interface.

Example `set pppoe = yes`

Dependencies If both PPPoE and packet bridging are disabled on the Ethernet interface, PPPoE packets will be discarded. Under those conditions, only IP packets will be accepted on the interface.

Location `CONNECTION:pppoe-options`
`ETHERNET:pppoe-options`

precedence

Description Specifies the priority level of the data stream. The three most significant bits of the type-of-service (TOS) byte are priority bits used to set precedence for priority queuing.

When TOS is enabled in a `connection` profile, you can set the priority bits to one of the following values to set proxy-quality-of-service (QoS) precedence for the traffic on a particular WAN connection. In a filter profile, specifying a `precedence` value causes the system to enable proxy-QoS for packets that match the filter.

Usage Specify one of the following values (most significant bit first):

- 000 (the default)—Normal priority
- 001—Priority level 1
- 010—Priority level 2
- 011—Priority level 3
- 100—Priority level 4

- 101—Priority level 5
- 110—Priority level 6
- 111—Priority level 7 (the highest priority)

Example `set precedence = 001`

Dependencies For this setting to apply, TOS and IP routing must be enabled in the `connection` profile, or TOS must be specified as the filter type in the `filter` profile.

Location `CONNECTION:ip-options:tos-options`
`FILTER:input-filters[`*n*`]:tos-filter`
`FILTER:output-filters[`*n*`]:tos-filter`

preempt

Description Specifies the number of seconds of idle time that a session can have before being preempted.

Usage Specify a numeric value in seconds in a range of 0 to 65535. The default value is 60 (1 minute). The value 0 (zero) prevents preemption.

Example `set preempt = 100`

Dependencies The `idle-timer` parameter must be greater in value than `preempt`.

Location `CONNECTION:session-options`

preference

Description Specifies a preference value for the route. When choosing a route, the router first compares their preference values, preferring the lowest number. If the preference values are equal, the router compares the metric values, and selects the route with the lowest metric.

Usage Specify a number from 0 to 255. A value of 255 prevents the use of the route, and is valid only for a WAN route specified by a `connection` profile. Following are the default preferences for different types of routes:

- 0 (zero)—Connected routes
- 10—Open Shortest Path First (OSPF) routes
- 30—Routes learned from Internet Control Message Protocol (ICMP) redirects
- 100—Routes learned from RIP
- 100—Static routes
- 100—Ascend Tunnel Management Protocol (ATMP) routes

Example `set preference = 100`

Location `CONNECTION:ip-options`
`IP-ROUTE`

prefix-len

Description Specifies the length of the reachable Asynchronous Transfer Mode (ATM) address prefix.

Usage Specify a number from 0 to 152.

Example `set prefix-len = 50`

Location PNNI-ROUTE-ADDR
PNNI-SUMMARY-ADDR:addr-index

prefix-name

Description Name of the `atm-prefix` profile. The profile with the default index contains the system-generated prefix and can be used to generate defaults for all three types of system addresses.

Usage Enter up to 20 alphanumeric characters to specify the name of the profile. The default value is `default`.

Example `set prefix-name = atm-pre-1`

Location ATM-PREFIX

previous-trunk-daughter-type

Description Specifies the previous type of trunk daughter module in this device, if there was one.

Usage Valid values are as follows:

- `trunk-daughter-none`
- `trunk-daughter-oc3-quad`
- `trunk-daughter-ds3`
- `trunk-daughter-oc3-ds3-combo`
- `trunk-daughter-oc3-single`
- `trunk-daughter-ds3-single`
- `trunk-daughter-e3`
- `trunk-daughter-e3-single`

Example `set previous-trunk-daughter-type = trunk-daughter-e3`

Location TRUNK-DAUGHTER-DEV

primary-preference

Description In a redundant system, specifies the preference level for electing this control module as primary at the next system reset.

Usage Valid values are as follows:

- `no-preference` (the default)—Specifies that the system chooses the primary control module. The system chooses the one that was primary most recently.
- `first-controller-preferred`—Specifies that the system gives preference to the control module in the first control module slot (slot 8). If this control module is not available, the system designates the one in slot 9 as primary.
- `second-controller-preferred`—Specifies that the system gives preference to the control module in the second control module slot (slot 9). If this control module is not available, the system designates the one in slot 8 as primary.

Example `set primary-preference = first-controller-preferred`

Location `REDUNDANCY`

primary-sdtn-empty-enabled

Description Specifies whether the short-duration transaction network (SDTN) primary list empty trap (notification) is enabled.

Usage Valid values are as follows:

- `yes`—Specifies that the SDTN primary list empty trap is enabled. This is the default.
- `no`—Specifies that the SDTN primary list empty trap is not enabled.

Example `set primary-sdtn-empty-enabled = no`

Location `TRAP`

primary-tunnel-server

Description Specifies the IP address or hostname of the Ascend Tunnel Management Protocol (ATMP) primary Home Agent, L2TP Network Server (LNS) end point, or intermediate destination that decapsulates IP packets using IP-within-IP (IPIP) tunneling.

Usage Specify an IP address in dotted decimal notation, or a symbolic hostname containing up to 31 characters. The IP address must be the system address, not the IP address of the interface on which the unit receives tunneled data. The default is 0.0.0.0.

If you specify a hostname, the Stinger router module uses the Domain Name System (DNS) to look up the host IP address. If the unit requires a UDP port number different from the value specified by `udp-port`, you can specify a port value by appending a colon character (:) and the port number to the IP address or hostname.

Example The following setting specifies an IP address and UDP port number:

```
admin> set primary-tunnel-server = 10.11.22.33:8877
```

The following setting specifies a hostname and UDP port number:

```
admin> set primary-tunnel-server = server.company.com:6969
```

Dependencies You must set `profile-type` to `mobile-client` for the `primary-tunnel-server` setting to apply.

Location CONNECTION:tunnel-options

prior-function

Description Read-only. Indicates the prior function of the controller in this context.

Usage Read-only parameter with the following possible values:

- no-function
- primary
- secondary

Example prior-function = primary

Location REDUNDANCY-STATS:context-stats

priority

Description Specifies a priority, as follows:

- For the ospf-options and ospf subprofiles, specifies the priority of the Open Shortest Path First (OSPF) router with regard to designated-router and backup designated-router election.
- For the txlink-config subprofile, specifies the priority assigned for the timing reference link (TRL). The TRL is used to derive the inverse multiplexing over ATM (IMA) data cell rate (IDCR).

Usage Valid values are as follows:

- For the ospf-options and ospf subprofiles, specify an integer. In a connection profile or ip-interface profile, the Stinger unit can function as either a designated router or backup designated router. However, many sites choose to assign these functions to LAN-based routers to dedicate the Stinger unit to WAN processing. The default is 5
- For the txlink-config subprofile, specify a numeric value between 0 and 7.

Example set priority = 4

Dependencies For OSPF applications, choose the designated-router and backup designated-router election priority on the basis of each device's processing power and reliability. Assigning a priority of 1 or greater places the Stinger unit on the list of possible designated routers and backup designated routers. A priority value of 0 (zero) excludes the unit from becoming a designated router or backup designated router. The higher the priority value of the Stinger unit relative to other OSPF routers on the network, the better are the chances that it will become a designated router or backup designated router.

Location DS1-ATM:line-config:ima-option-config:txlink-config
CONNECTION:ip-options:ospf-options
IP-INTERFACE:ospf

priority-number

Description Read-only. Indicates the number of the traffic shaper.

Usage Read-only numeric value, set to the number of the traffic shaper.

Example `priority-number = 16`

Location `SYSTEM:traffic-shapers`
`ATM-INTERNAL:traffic-shapers[`*n*`]`

private-route

Description Enables or disables advertisement of the route in RIP update packets sent out by the system.

Usage Valid values are as follows:

- `yes`—Excludes the route from update packets.
- `no` (the default)—Includes the route in RIP updates.

Example `set private-route = yes`

Location `CONNECTION:ip-options`
`IP-ROUTE`

private-route-profile-required

Description Specifies whether the system must have access to a private routing table to establish a call.

- In a `connection` profile, this parameter specifies whether access to the private routing table is required for the session. This parameter does not apply if the profile does not refer to a private routing table by name.
- In the `answer-defaults` profile, this parameter is used for RADIUS user profiles that refer to a private routing table and do not specify a value for `Ascend-Private-Route-Required (55)`.

Usage Valid values are as follows:

- `yes`—Drops the call if the system cannot locate the private routing table.
- `no` (the default)—Establishes the link even if the system cannot locate the private routing table.

Example `set private-route-profile-required = yes`

Dependencies The system uses the `private-route-profile-required` value in the `answer-defaults` profile only if the `Ascend-Private-Route-Required (55)` attribute is not set in a RADIUS private-route profile.

Location `ANSWER-DEFAULTS:ip-answer`
`CONNECTION:ip-options`

private-route-table

Description Specifies the name of a `private-route-table` profile associated with the connection. The name can be that of a local profile or of a private-route pseudo-user profile in RADIUS.

Usage Specify the name of a `private-route-table` profile. The default is null.

Example `set private-route-table = private-rt-1`

Dependencies A local `connection` profile must use authentication, or it cannot point to a RADIUS private-route profile.

Location `CONNECTION:ip-options`

priv-key

Description Specifies a privacy key for SNMPv3 user-based security model (USM) users.

Usage In most cases, you do not set this string directly. Instead, use the `snmpprivpass` command to generate the value. If you have permission to view passwords, the privacy key appears as a string with escape sequences for save and restore purposes. Otherwise, the privacy key appears as a row of asterisks. The default is null.

If you change the value of `priv-key` directly, keep in mind that the length of the escape sequence must be either of the following values:

- 10 (16d in hexadecimal) if message-digest algorithm 5 (MD5) is in use
- 14 (20d in hexadecimal) if the secure hash algorithm (SHA) is in use

If you specify an invalid value, the unit uses the previous key, if any, to communicate with the SNMP manager. If no previous key exists, this USM user cannot communicate with the network until a valid key is generated by means of the `snmpprivpass` command.

Example Suppose you use the `snmpprivpass` command to generate the following 16-byte string:

`27 0a dc 75 f8 98 e5 7c 4c 03 22 7d dd ac 0d ef`

The system displays it as the following `priv-key` value:

```
'\x0a\xdcu\xf8\x98\xe5|L\x03"}\xdd\xac\x0d\xef
```

Dependencies Consider the following:

- You must generate the privacy key by means of the `snmpprivpass` command before the `snmpv3-usm-user` profile can be used for communication with the SNMP manager.
- If you change the authentication protocol from MD5 to SHA (or vice versa), you must change the privacy key by means of the `snmpprivpass` command. The previous protocol-and-key combination is used until you specify a new one.

Location `SNMPV3-USM-USER`

priv-password

Description Specifies the privacy password for generating the private key for Data Encryption Standard (DES) encryption.

Usage Specify a text string. The default is null.

Example `set priv-password = homer`

Dependencies The `priv-password` parameter applies only if `priv-protocol` is set to `des-priv`.

Location `SNMPV3-USM-USER`

priv-protocol

Description Specifies whether messages sent on behalf of the user to and from the Simple Network Management Protocol (SNMP) agent in the Stinger unit can be protected by encryption and, if so, the type of privacy protocol to be used.

Usage Valid values are as follows:

- `no-priv`—Specifies that no encryption is required and that privacy is disabled. This is the default.
- `des-priv`—Specifies that Data Encryption Standard (DES)-based privacy is required. Incoming messages that are DES-encrypted are interpreted. The Stinger system uses DES to encrypt outgoing responses. Note that outgoing reports are not encrypted.

Example `set priv-protocol = des-priv`

Location `SNMPV3-USM-USER`

profile

Description Array that contains a listing of system profiles to which users in this user group are denied access.

Usage You can specify up to 400 profiles. The default setting for this array is null.

Example `set 1 = user`

Location `USER-GROUP`

profile-flags

Description *Not used.*

Location `CONNECTION:answer-options'`

profile-required

Description Specifies whether a dedicated profile is required to connect the user availing himself of this `connection` profile.

Usage Valid values are as follows:

- `yes`
- `no` (the default)

Example `set profile-required = yes`

Location `CONNECTION:answer-options`

profiles-required

Description Specifies whether the Stinger unit rejects incoming calls for which it could find neither a `connection` profile nor an entry on a remote authentication server.

If you do not require a configured profile for all callers, the Stinger unit builds a temporary profile for unknown callers. Many sites consider the use of a temporary profile a security breach, and require that all callers have a configured profile.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit requires a configured profile for all callers. The unit rejects calls for which it cannot find a configured profile. This is the default.
- `no`—Specifies that if the Stinger unit cannot find a configured profile, it creates a temporary profile for the caller.

Example `set profiles-required = no`

Dependencies You cannot set `profiles-required` for terminal-server calls.

Location `ANSWER-DEFAULTS`

profile-type

Description Specifies the type of tunneling profile.

Usage Specify one of the following values:

- `disabled`—The connection is not used for tunneling. This is the default.
- `mobile-client`—The profile is used to authenticate a mobile client. Use this setting for PPP clients using Layer 2 Tunneling Protocol (L2TP) or Ascend Tunnel Management Protocol (ATMP) tunneling.
- `gateway-profile`—The profile sets up a gateway connection to an ATMP home network. Use this setting in an ATMP Home Agent gateway profile.
- `dialout-profile`—*Not supported.*
- `lan`—The default value for OSPF routing on a GigE interface.
- `wan`—The default value for OSPF routing on an ATM Trunk interface.

Example `set profile-type = mobile-client`

Location CONNECTION:tunnel-options
IP-INTERFACE:ospf

prompt

Description Specifies a string that the Stinger unit uses as a command-line prompt.

Usage Specify a string of up to 15 characters. In a `user` profile, the default is an asterisk, which causes the Stinger unit to substitute the value of the profile's name upon successful login.

This parameter is not used in the `terminal-mode-configuration` profile.

Example `set prompt = virginia>`

Location TERMINAL-SERVER:terminal-mode-configuration
USER

prompt-format

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration

protection-channel

Description Read-only. Indicates the physical address of the protection channel.

Usage This read-only parameter shows the address in { *shelf slot port*} format.

Example `protection-channel = { shelf-1 trunk-module-2 2 }`

Location APS-STAT

protection-channel-signal-degrade-exponent

Description Specifies the signal degrade exponent for the protection channel in automatic protection switching (APS).

Usage Specify a number from 5 through 9. The default is 6.

Example `set protection-channel-signal-degrade-exponent = 7`

Location APS-CONFIG

protection-channel-signal-failure-exponent

Description Specifies the signal failure exponent for the protection channel in automatic protection switching (APS).

Usage Specify a number from 3 through 5. The default is 3.

Example `set protection-channel-signal-failure-exponent = 4`

Location APS-CONFIG

protection-mode

Description Specifies or indicates the mode of linear automatic protection switching (APS), depending on the profile it appears in.

Usage Currently only linear APS 1+1 is supported. The value 1+1 is the default.

Example `set protection-mode = 1+1`

Location APS-CONFIG
APS-STAT

proto

Description Specifies the mechanism by which the advertising node learns of reachability to the address prefix.

Usage Valid values are as follows:

- `other`—The protocol is unspecified. This is the default.
- `local`—Specifies a local routing protocol such as Integrated Local Management Interface (ILMI). *ILMI is not supported with the current software version.*
- `mgmt`—Specifies a management protocol such as Simple Network Management Protocol (SNMP).
- `pnni`—Specifies ATM Forum Private Network-to-Network Interface (PNNI) dynamic routing protocol.

Example `set proto = other`

Location PNNI-ROUTE-ADDR

protocol

Description Specifies the protocol type of packets to be filtered or redirected, as follows:

- When specified in the `port-redirect-options` subprofile of a `connection` profile, the specified setting is used for port redirection. Port redirection enables you to redirect any TCP or UDP packet to a specified server on the basis of its protocol and port information.
- When specified in a `filter` profile, the system compares the protocol number you specify to the protocol number field in packets. A number of 0 (zero) matches all protocols. If you specify a nonzero number, the system compares it to the protocol field in each packet.

Usage Valid values are as follows.

- In a `connection` profile, specify one of the following values:
  - `none` (the default)—Disables port redirection.

  - udp—Redirects UDP packets received on the port specified in the port-number parameter to the address specified in the redirect-address parameter.
  - tcp—Redirects TCP packets received on the port specified in the port-number parameter to the address specified in the redirect-address parameter.
- In a filter profile, specify a nonzero protocol number to identify the type of protocol to be filtered. For a list of assigned protocol numbers, see RFC 1700, *Assigned Numbers*, by Reynolds, J. and Postel, J., October 1994.

Example Use these examples to help you:

- For FTP traffic, set protocol and port-number in port-redirect-options as follows:

```
set protocol = tcp
set port-number = 21
```

- For Telnet traffic, set protocol and port-number in port-redirect-options as follows:

```
set protocol = tcp
set port-number = 23
```

- For HTTP traffic, set protocol and port-number in port-redirect-options as follows:

```
set protocol = tcp
set port-number = 80
```

- In a filter profile, the following command sets the protocol to be filtered to TCP:

```
set protocol = 6
```

Dependencies Consider the following:

- For port redirection, both the protocol and port-number settings are required to define a type of packet to be redirected.
- In a filter, this setting applies only if type is set to ip-filter or tos-filter.

Location CONNECTION:port-redirect-options
FILTER:input-filters[*n*]:ip-filter
FILTER:output-filters[*n*]:ip-filter
FILTER:input-filters[*n*]:tos-filter
FILTER:output-filters[*n*]:tos-filter

proxy-arp

Description Enables or disables Proxy Address Resolution Protocol (ARP), which causes the router module to respond as a proxy for remote hosts on the far end of the bridged IP routing (BIR) link when a local host issues an ARP request.

Usage Valid values are as follows:

- yes—Enables Proxy ARP.
- no (the default)—Does not enable Proxy ARP.

Example `set proxy-arp = yes`

Location CONNECTION:bir-options

proxy-mode

Description Enables or disables Proxy Address Resolution Protocol (ARP) responses for remote devices that are assigned local addresses.

Usage Valid values are as follows:

- `off`—Specifies that the system does not proxy any addresses. This is the default.
- `active`—Specifies that the system responds to an ARP request with its own media access control (MAC) address if the request matches an active `connection` profile over which the Stinger unit routes IP.
- `inactive`—Specifies that the system responds to an ARP request if the request matches the IP address of any inactive `connection` profile over which the unit routes IP.
- `always`—Specifies that the system responds to an ARP request with its own MAC address if the request matches any IP address to which the unit has a route.

Example `set proxy-mode = inactive`

Location `IP-INTERFACE`

psbf-clear-timer-duration

Description Specifies the protection switching byte failure (PSBF) clear timer duration in tenths of milliseconds in automatic protection switching (APS).

Usage Specify a number from 0 through 4,294,967,295. The default is 1000.

Example `set psbf-clear-timer-duration = 20`

Location `APS-CONFIG`

psbf-failure

Description Read-only. Indicates whether a protection switching byte failure (PSBF) occurred in the automatic protection switching (APS) system.

Usage Valid values are for this read-only parameter are `as follows:`

- `true`—A protection switching byte failure (PSBF) occurred.
- `false`—No PSBF occurred.

Example `psbf-failure = false`

Location `APS-STAT`

psbf-failure-timer-duration

Description Specifies the protection switching byte failure (PSBF) timer duration in tens of milliseconds in automatic protection switching (APS).

Usage Specify a number from 0 through 4,294,967,295. The default is 250.

Example `set psbf-failure-timer-duration = 200`

Location APS-CONFIG

psd-frequency-level

Description Read-only. Reports test results concerning noise in a copper loop test (CLT).

Usage Valid values for this read-only parameter are as follows:

Noise test type	Data reported
Background noise test in power spectral density (PSD) mode	Data consists of 371 pairs of PSD test data. The first number in each pair is the test frequency in kilohertz. The second number in each pair is the noise level in decibels referred to 1 milliwatt per hertz (dBm/Hz).
Background noise test, E, F, or G mode	A single value representing aggregated noise in hundreths (0.01) of a dBm.
Insertion loss test	Data consists of 371 pairs of test data. The first number in each pair is the test frequency in kHz. the second number in each pair is the loss in hundreths (0.01) of a decibel.
Signal-to noise-test	Data consists of 371 pairs of test data. The first number in each pair is the test frequency in kilohertz. The second number in each pair is the S/N ratio in hundreths (0.01) of a decibel.

Example `psd-frequency-level = [ { 4 -7892 } { 9 -3849 } { 13 -3849 } { 17 -3422 } { 22 +`

Location CLT-RESULT

ptse-holddown

Description Specifies the initial value in 100-millisecond units for the Private Network-to-Network Interface (PNNI) topology state element (PTSE) hold-down timer.

The node uses this timer value to limit the rate at which it can send PTSEs.

Usage Specify a positive nonzero number. The default is 10.

Example `set ptse-holdown = 8`

Location PNNI-NODE-CONFIG:node-timer

ptse-id-ptse-id

Description Read-only. Specifies the PNNI topology state element (PTSE) *identifier (ID)*. This ID is originated by the node that contains the information group(s) describing the reachable address.

Usage For reachable addresses learned by means other than PNNI, the default zero value is required.

Example `ptse-id-ptse-id = 0`

Location `PNNI-Route-Addr`

ptse-lifetime-factor

Description Specifies the multiplier, expressed as a percentage, by which the system multiplies the `ptse-refresh-interval` value to obtain the initial lifetime to place into self-originated Private Network-to-Network Interface (PNNI) topology state elements (PTSEs).

Usage Specify a percentage by which the `ptse-refresh-interval` is multiplied. The product is assigned to self-originated PTSEs. The default is 200

Example `set ptse-lifetime-factor = 150`

Location `PNNI-NODE-CONFIG:node-timer`

ptse-refresh-interval

Description Specifies the value, in seconds, for the Refresh timer. This value is used to determine how often to originate Private Network-to-Network Interface (PNNI) topology state elements (PTSEs) in the absence of triggered updates.

Usage Specify the number of seconds. The default is 1800.

Example `set ptse-refresh-interval = 1700`

Location `PNNI-NODE-CONFIG:node-timer`

pvc-failure-intvl

Description Minimum number of seconds between the sending of PVC failure trap notifications.

Usage Set a value from 0 to 3600 seconds. The default value is 30.

Example `set pvc-failure-intvl = 60`

Location `ATM-IF-CONFIG:extension-config`

pvc-failure-trap-enabled

Description Enables or disables generation of traps (notifications) in response to permanent virtual circuit (PVC) failures on this interface.

Usage The following values are valid:

- `no` (the default)—Disables traps in response to PVC failures.
- `yes`—Enables traps in response to PVC failures.

Example `set pvc-failure-trap-enabled = yes`

Location `ATM-IF-CONFIG:extension-config`

pvc-type

Description Read-only. Indicates the type of permanent virtual circuit (PVC) in use on an Asynchronous Transfer Mode (ATM) connection.

Usage The PVC-Type value is read-only. Valid values are as follows:

- `connecting`—Indicates that the PVC is a point-to-point connection.
- `terminating`—Indicates that the PVC terminates on this platform.

Location `ATMPVC-STAT`

Q

qos-class

Description Specifies the Asynchronous Transfer Mode (ATM) service class for the quality-of-service (QoS) contract. Also referred to as ATM service category.

Usage Valid values are as follows:

- `cbr` (the default)—Specifies constant bit rate, a service class for connections that depend on precise clocking to ensure undistorted delivery of bits.
- `vbr-rt`—Specifies variable bit rate (VBR)-real time, a service class that handles the packaging of special delay-sensitive applications (such as packet video) that require low cell-delay variation between end points.
- `vbr-nrt`—Specifies VBR-nonreal time, a service class that handles packaging for the transfer of long, bursty data streams over a preestablished ATM connection.
- `ubr`—Specifies unspecified bit rate, a service class that handles bursty LAN traffic, as well as data that accepts delays and cell loss. It is a best-effort service that does not specify bit rates or traffic values, and offers no QoS guarantees.

Example `set qos-class = ubr`

Dependencies If `encapsulation-protocol` is not set to `atm` or `atm-circuit`, `qos-class` does not apply.

Location `ATM-QOS`

qos-contract

Description Specifies the Asynchronous Transfer Mode (ATM) quality-of-service (QoS) contract for the connection.

Usage Valid values are as follows:

- `cbr` (the default)—Constant bit rate, for connections that depend on precise clocking to ensure undistorted delivery of bits.

- `real-time-vbr`—Variable bit rate(VBR)-real time, which handles the packaging of special delay-sensitive applications (such as packet video) that require low cell-delay variation between end points.
- `non-real-time-vbr`—VBR-nonreal time, which handles packaging for the transfer of long, bursty data streams over a preestablished ATM connection.
- `abr`—Available bit rate.
- `ubr`—Unspecified bit rate, which handles bursty LAN traffic, as well as data that accepts delays and cell loss. It is a best-effort service that does not specify bit rates or traffic values, and offers no QoS guarantees.

Example `set qos-contract = cbr`

Dependencies If `encapsulation-protocol` is not set to `atm` or `atm-circuit`, `qos-contract` does not apply.

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

query-interval

Description Specifies the number of seconds between general queries.

Usage Specify a number from 0 through 1024. You can increase this value from its default of 125 seconds to reduce the number of IGMP queries sent on the interface.

Example `set query-interval = 250`

Location `CONNECTION:ip-options:igmp-options`

query-response-interval

Description Specifies the maximum response time (in tenths of a second) inserted into general queries.

Usage Specify a number from 0 through 1024. You can increase this value from its default of 10 seconds to make IGMP traffic less bursty, because host responses will be spread out over a larger interval.

Example `set query-response-interval = 20`

Dependencies The number of seconds of response time (the value of `query-response-interval` divided by 10) must be less than the `query-interval` value.

Location `CONNECTION:ip-options:igmp-options`

queue-depth

Caution Specifies the number of packets that can be held for transmission for Simple Network Management Protocol (SNMP) requests. Packets in excess of this number are dropped.

Usage Specify a number from 0 to 65535. The default is 0, which specifies that the Stinger unit does not drop packets, no matter how far behind the SNMP subsystem gets. If the queue grows too large in a heavily loaded environment, the system can run out of memory.

Example `set queue-depth = 25`

Dependencies When setting this value, you are trading memory resources for SNMP retries in the event that the Stinger unit is busy and falls behind in transmitting the SNMP packets.

Location `SNMP`

queue-index

Description Specifies the queue of the outgoing trunk port that is associated with the virtual path identifier (VPI) of the path whose traffic is shaped.

Usage Specify a number from 0 to 62. A value of zero inactivates the shaper.

Example `set queue-index = 5`

Dependencies You must specify an additional, separate queue in the `outgoing-queue` *`N`* subprofile before this parameter is set.

Location `SWITCH-CONFIG:atm-parameters:outgoing-shaper`

R

racp-chcs-error-count

Description Read-only. Indicates the number of receive ATM cell processor (RACP) correctable header check sequence (CHCS) errors. The RACP delineates ATM cells and filters cells on the basis of their idle status, unassigned status, or HCS errors. It also descrambles the cell payload.

Usage The `racp-chcs-error-count` value is read-only.

Example `racp-chcs-error-count = 0`

Location `OC3-ATM-STAT`

racp-rx-cell-count

Description Read-only. Indicates the receive ATM cell processor (RACP) receive cell count.

Usage The `racp-rx-cell-count` value is read-only.

Example `racp-rx-cell-count = 0`

Location `OC3-ATM-STAT`

See Also `tacp-tx-cell-count`

racp-uchcs-error-count

Description Read-only. Indicates the number of receive ATM cell processor (RACP) uncorrectable header check sequence (UCHCS) errors. The RACP delineates ATM cells and filters cells on the basis of their idle status, unassigned status, or HCS errors. It also descrambles the cell payload.

Usage The `racp-uchcs-error-count` value is read-only.

Example `racp-uchcs-error-count = 0`

Location `OC3-ATM-STAT`

See Also `racp-chcs-error-count`

rad-id-source-unique

Description *Not used.* Specifies whether each RADIUS accounting request should be identified by the user datagram protocol (UDP) source port value, as well as by RADIUS ID, to extend the available number of unique IDs for accounting requests.

RADIUS uses ID values in Request-Response matching. For each unique accounting request (including retries, if a response is not received within the configured timeout period), RADIUS assigns an 8-bit ID value. The assigned value is freed when the

request is no longer pending—that is, when RADIUS matches a request with a response, or the request times out.

When the Stinger unit runs at high capacity, RADIUS can run out of unique IDs. By default, when the server reaches its limit of 256 outstanding requests, no unique values are available for the next accounting request. To overcome this limitation, you can specify that each request be identified by the UDP source port as well as by the RADIUS ID value.

rad-id-space

Description *Not used.*

radius-change-enabled

Description Specifies whether the system generates a trap (notification) when a new RADIUS server is being accessed. This trap returns the objectID and IP address of the new server.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap when a new RADIUS server is being accessed. This is the default.
- `no`—Specifies that the system does not generate a trap when a new RADIUS server is being accessed.

Example **`set radius-change-enabled = no`**

Location `TRAP` *`host-name`*

See Also `event-overwrite-enabled`

ra-downshift-int-down

Description *Not currently used.* Specifies the number of seconds that the downshift noise margin can be maintained before the line reduces its downstream bit rate.

Usage When this parameter becomes available you will be able to specify a value from 1 to 255.

Example **`set ra-downshift-int-down=15`**

Location `AL-DMT:margin-config`

See Also `ra-downshift-int-up`

ra-downshift-int-up

Description *Not currently used.* Specifies the number of seconds that the downshift noise margin can be maintained before the line reduces its upstream bit rate.

Usage When this parameter becomes available you will be able to specify a value from 1 to 255.

Example `set ra-downshift-int-up = 15`

Location `AL-DMT:margin-config`

See Also `rarp-enabled`

ra-downshift-margin-down

Description *Not currently used.* Specifies the downstream noise margin relative to zero decibels (dB). If the noise level remains at this level for more than the specified time interval, the line reduces its downstream bit rate.

Usage When this parameter becomes available you will be able to specify a value from 1 to 31 dB.

Example `set ra-downshift-margin-down = 15`

Location `AL-DMT:margin-config`

See Also `ra-downshift-margin-up`

ra-downshift-margin-up

Description *Not currently used.* Specifies the upstream noise margin relative to 0 dB. If the noise level remains at this level for more than the specified time interval, the line reduces its upstream bit rate.

Usage When this parameter becomes available you will be able to specify a value from 1 to 31 dB.

Example `ra-downshift-margin-up = 15`

Location `AL-DMT:margin-config`

See Also `ra-downshift-margin-down`

rad-serv-enable

Description Specifies whether or not the on-board RADIUS server is enabled.

Usage Valid values are as follows:

- `yes`—Specifies that the RADIUS server is enabled.
- `no`—Specifies that the RADIUS server is not enabled. This is the default.

Example `set rad-serv-enable = yes`

Location `EXTERNAL-AUTH`

rarp-enabled

Description Enables or disables obtaining the system's IP addresses from a Reverse Address Resolution Protocol (RARP) server.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—Enable the Stinger unit to use RARP to obtain its IP address from a RARP server.
- `no`—Disable the Stinger unit's ability to use RARP.

Example `set rarp-enabled = yes`

Location `IP-GLOBAL`

rate-adapt-mode-down

Description Specifies the rate-adaptive mode for downstream training.

Usage Specify one of the following values:

- `automatic-at-startup` (the default)—Specifies that the downstream rate is selected at startup. If you accept the `automatic-at-startup` default, the customer premises equipment (CPE) initializes at a minimum specified bit rate and target noise margin.

  If the CPE fails to achieve the minimum bit rate in either direction, it cannot initialize, and it sends a message that the requested bit rate was too high. If the CPE can support a higher bit rate than the specified minimum, it can train up to a higher rate within the acceptable noise margin. Each direction can specify a different minimum and maximum bit rate for using the fast or interleaved ADSL channel.
- `operator-controlled`—Specifies that the line trains downstream using a constant planned bit rate. The CPE must initialize at and maintain a specific bit rate with an acceptable target noise margin.

  If the CPE fails to achieve the planned bit rate in either direction, it fails to initialize. The CPE does not use a higher bit rate, even if it can support one.
- `dynamic`—*Not currently used*.

Example `set rate-adapt-mode-down = operator-controlled`

Dependencies By default, the `rate-adapt-mode-up` and `rate-adapt-mode-down` parameters in the `al-dmt:line-config` subprofile are set to `automatic-at-startup`. To change the setting to `operator` for *both* the `rate-adapt-mode-up` and `rate-adapt-mode-down` parameters, you need only configure the `rate-adapt-mode-up` parameter.

Location `AL-DMT:line-config`

See Also `rate-adapt-mode-up`

rate-adapt-mode-up

Description Specifies the rate-adaptive mode for upstream training.

Usage Specify one of the following values:

- `automatic-at-startup`—Specifies that the upstream rate is selected at startup. If you accept the `automatic-at-startup` default, the customer premises equipment (CPE) initializes at a minimum specified bit rate and target noise margin.

  If the CPE fails to achieve the minimum bit rate in either direction, it cannot initialize, and sends a message that the requested bit rate was too high. If the CPE can support a higher bit rate than the specified minimum, it can train up to a higher rate within the acceptable noise margin. Each direction can specify a different minimum and maximum bit rate for using the fast or interleaved ADSL channel. This is the default.

- `operator-controlled`—Specifies that the line trains upstream using a constant planned bit rate. The CPE must initialize at and maintain a specific bit rate with an acceptable target noise margin.

  If the CPE fails to achieve the planned bit rate in either direction, it fails to initialize. The CPE does not use a higher bit rate, even if it can support one.

- `dynamic`—*Not currently used*.

Example `set rate-adapt-mode-down = operator-controlled`

Dependencies By default, the `rate-adapt-mode-up` and `rate-adapt-mode-down` parameters in the `al-dmt:line-config` subprofile are set to `automatic-at-startup`. To change the setting to `operator` for *both* the `rate-adapt-mode-up` and `rate-adapt-mode-down` parameters, you need only configure the `rate-adapt-mode-up` parameter.

Location `AL-DMT:line-config`

See Also `rate-adapt-mode-down`

rate-adapt-ratio-down

Description *Not currently used.* Specifies the ratio for distributing excess downstream bit rate among the fast and interleaved channels when dual latency is supported.

Usage Specify a percentage from 0 to 100 percent. 100 percent is the default.

Example `rate-adapt-ratio-down = 100`

Dependencies This parameter is valid only when `rate-adapt-mode` is set to `automatic_at_startup` or `dynamic`.

Location `AL-DMT:line-config`

rate-adapt-ratio-up

Description *Not currently used.* Specifies the ratio for distributing excess upstream bit rate among the fast and interleaved channels when dual latency is supported.

Usage Specify a percentage from 0 to 100 percent. 100 percent is the default.

Example `rate-adapt-ratio-up = 100`

Dependencies This parameter is valid only when `rate-adapt-mode` is set to `automatic_at_startup` or `dynamic`.

Location `AL-DMT:line-config`

rate-mode

Description Specifies whether the HDSL2 or SHDSL line rate is fixed or adaptive (also called automatic).

Usage Specify one of the following values:

- `fixed`—The modem tries to establish a connection only at a rate specified by the setting of the `max-rate` parameter. Noise margin settings of the `margin` and `snext-margin` parameters are not considered.
- `auto`—After an adaptive probe establishes the line characteristics, the modem tries to establish a connection at the maximum rate possible between the `max-rate` and `min-rate` settings that satisfies the settings of the `margin` and `snext-margin` parameters. This is the default setting.

Dependencies This parameter applies only if the `interface-type` parameter is set to `g-shdsl`.

Example `set rate-mode = fixed`

Location `HDSL2:line-config`
`SHDSL:line-config`

ratio-centralized-detection

Description *For internal use only.*

ra-upshift-int-down

Description *Not currently used.* Specifies the number of seconds that the upshift noise margin can be maintained before the line increases its downstream bit rate.

Usage Specify a value from 1 to 255.

Example `set ra-upshift-int-down = 15`

Location `AL-DMT:margin-config`

See Also `ra-upshift-int-up`

ra-upshift-int-up

Description *Not currently used.* Specifies the number of seconds that the upshift noise margin can be maintained before the line increases its upstream bit rate.

Usage Specify a value from 1 to 255.

Example `set ra-upshift-int-up = 15`

Location `AL-DMT:margin-config`

See Also `ra-upshift-int-down`

ra-upshift-margin-down

Description *Not currently used.* Specifies the downstream noise margin relative to zero decibels (dB). If the noise level remains at this level for more than the specified time interval, the line increases its downstream bit rate.

Usage Specify a value from 1dB to 31dB.

Example `set ra-upshift-margin-down = 15`

Location `AL-DMT:margin-config`

See Also `ra-upshift-margin-up`

ra-upshift-margin-up

Description *Not currently used.* Specifies the upstream noise margin relative to 0 dB. If the noise level remains at this level for more than the specified time interval, the line increases its upstream bit rate.

Usage Specify a value from 1dB to 31dB.

Example `set ra-upshift-margin-up = 15`

Location `AL-DMT:margin-config`

See Also `ra-upshift-margin-down`

rcv-tone-frequency

Description Read-only. Reports the receive tone frequency in herz during a copper loop test (CLT) module test.

Usage This is a read-only value.

Example `rcv-tone-frequency = 0`

Location `CLT-RESULT`

See Also `rcv-tone-level`

rcv-tone-level

Description Read-only. Reports the receive tone level in hundredths (0.01) dBm during a copper loop test (CLT) module test.

Usage This is a read-only value.

Example `rcv-tone-level = 0`

Location `CLT-RESULT`

See Also `rcv-tone-frequency`

reach-type

Description Identifies the type of transceiver on the trunk module.

Usage For the `transceiver-info` profile, this parameter has the following read-only values which indicate the module type in the applicable slot:

- `short-reach`—Indicates a short reach module.
- `intermediate-reach`—Indicates an intermediate reach module.
- `long-reach`—Indicates a long reach module.
- `reach-none` (the default)—Indicates no module is detected.

Example `reach-type = long-reach`

Location `TRUNK-DAUGHTER-DEV:transceiver-info`

read-access-hosts[*n*]

Description An array containing up to five IP addresses of Simple Network Management Protocol (SNMP) managers that have read permission. If `enforce-address-security` is set to `yes`, the Stinger unit responds to SNMP `Get` and `Get-Next` commands from only the SNMP managers you specify in the array.

Usage For each element in the array, you can specify an IP address in dotted decimal notation.

Example `set read-access-hosts 1 = 10.2.3.4/24`

Dependencies You must set `enforce-address-security` to `yes` for the address to have any effect.

Location `SNMP`

read-community

Description Specifies a Simple Network Management Protocol (SNMP) community name. An SNMP manager must send the correct community name to access the SNMP Get and Get-Next commands.

Usage Specify the community name. You can enter up to 32 characters. The default is `public`. Asterisks are displayed in place of the name.

Example `set read-community = mycomm`

Location SNMP

read-view-name

Description Specifies the name of a view for read access in a view-based access control model (VACM).

Usage Specify a name of up to 32 characters. If a request that matches the access-properties specified in this profile uses this name, read access is granted. The default name is a null string.

Example `set read-view-name = elsinore`

Location VACM-ACCESS

See Also `access-properties`

read-write-access

Description Enables or disables read-write access to the unit's MIBs for this user.

Usage With the default value `no`, the user has read access only, which enables viewing but not modification of the MIBS. Specify `yes` or `no`

- `yes`—Enables read/write access.
- `no`—Enables read access only. This is the default.

Example `read-write-access = no`

Location SNMPv3-USM-USER

read-write-community

Description Specifies a read/write Simple Network Management Protocol (SNMP) community name. An SNMP manager must send the correct community name to access the SNMP `Get`, `Get-Next`, and `Set` commands.

Usage Specify the community name. You can enter up to 32 characters. The default is `write`.

Example `set read-write-community = secret`

Location SNMP

read-write-enabled

Description Specifies whether the read/write community can be accessed by means of SNMP.

Usage Valid values are as follows:

- `yes`—Specifies that the read/write community can be accessed by means of SNMP. This is the default.
- `no`—Specifies that the read/write community cannot be accessed by means of SNMP.

Example `set read-write-enabled = yes`

Location `SNMP`

See Also `read-write-access`

real-time-vbr

Description Enables or disables real-time variable bit rate (VBR) traffic in this queue.

Usage Valid values are as follows:

- `yes`—This queue supports ATM real-time VBR traffic.
- `no` (the default)—The queue does not support real-time VBR traffic. This is the default.

For each queue, one or more ATM services categories can be set to `yes`. The `real-time-vbr` parameter must be set to `yes` for at least one and no more than two of the active queues assigned to a LIM, control module, or trunk.

Location `SWITCH-CONFIG:atm-parameters:outgoing-queue`

receive-auth-mode

Description Specifies the authentication protocol to use for incoming PPP session requests. RADIUS is required for dynamic password using token cards.

Usage Specify one of the following values:

- `no-ppp-auth` (the default)—no authentication is required.
- `pap-ppp-auth`—The connection must use Password Authentication Protocol (PAP). The remote end sends its password in the clear. The password is not encrypted.
- `chap-ppp-auth`—The connection must use Challenge Handshake Authentication Protocol (CHAP). The remote end does not send its password in the clear. An MD5 digest calculated from the password and a random challenge are sent instead.
- `any-ppp-auth`—The connection must use PAP or CHAP or MS-CHAP (Microsoft's extension of CHAP).
- `des-pap-ppp-auth`—The connection must use PAP with dynamic passwords.

- token-pap-ppp-auth—The connection must use PAP with dynamic passwords. The system uses one-time Data Encryption Standard (DES) password encryption and sends a challenge in the token.
- token-chap-ppp-auth—The connection must use pap-token for the first call of a multichannel session, and CHAP for additional channels.
- cache-token-ppp-auth—The connection must use CHAP with dynamic passwords. The system uses CHAP with challenges, but caches token responses and uses them for authenticating additional channels.
- ms-chap-ppp-auth—The connection must use MS-CHAP, designed mostly for Windows NT or LAN Manager platforms.
- pap-preferred—The connection must use PAP or CHAP or MS-CHAP, but PAP is attempted first. If PAP is rejected by the client, then either CHAP or MS-CHAP is used.

Example `set receive-auth-mode = any-ppp-auth`

Dependencies When receive-auth-mode is set to any value other than no-ppp-auth, all connection or RADIUS profiles that specify PPP encapsulation must also specify a password. RADIUS is required for dynamic passwords using token cards.

Location ANSWER-DEFAULTS:ppp-answer

See Also ppp-answer

received-rs-blocks

Description Read-only. Indicates the number of received Reed-Solomon blocks. Indicates the number of received ADSL superframes (blocks) for Centillium-based line-interface modules (LIMs) and Stinger MRT units.

Usage The received-rs-blocks parameter is a read-only display for checking operations.

Example received-rs-blcks = 104073

Location AL-DMT-STAT:physical-statistic

See Also incoming-cells, transmitted-rs-blocks

receive-equalization

Description Enables or disables receive equalization. Receive equalization is needed if the cable length is more than 450 feet (157m).

Usage Valid values are as follows:

- no (the default)—Receive equalization is not enabled.
- yes—Receive equalization is enabled.

Example `set receive-equalization = yes`

Location DS3-ATM:line-config

receive-sdu-size

Description Size of the receive service data unit (SDU) in octets.

Usage Specify a value between 1 and 2000 octets. One octet is the default value.

Example `set receive-sdu-size = 128`

Location `CONNECTION:atm-aal-options`

rec-link-cond-time

Description *Not currently used.* Specifies the amount of time that must elapse before link conditioning timeout takes place during link recovery,

Usage Specify a number from 0 through 2147483647.

Example `set rec-link-cond-time = 10`

Location `DS1-ATM:line-config:ima-option-config:rxlink-config`

recv-channel-mismatch-count

Description Read-only. Indicates the number of channel-mismatch events received in the automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default value is 0 (zero).

Example `recv-channel-mismatch-count = 49`

Location `APS-STAT`

recv-fepl-count

Description Read-only. Indicates the number of far end protection line (FEPL) events received in the automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default value is 0 (zero).

Example `recv-fepl-count = 15`

Location `APS-STAT`

recv-mode-mismatch-count

Description Read-only. Indicates the number of mode-mismatch events received in the automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default value is 0 (zero).

Example `recv-mode-mismatch-count = 0`

Location APS-STAT

recv-password

Description Specifies the password that the Stinger unit must receive from the device initiating the PPP session request.

Usage Specify a text string of up to 20 characters. The password is case sensitive. If the Stinger unit does not require a password from the remote end, accept the default of null.

Example `set recv-password = remote`

Dependencies This setting does not apply if `receive-auth-mode` is set to `no-ppp-auth`. If `receive-auth-mode` is set to any other value, you must specify a password or the incoming request will fail authentication.

Location CONNECTION:ppp-options

recv-psbf-count

Description Read-only. Indicates the number of protection switching byte failure (PSBF) events received in the automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 2147483647. The default value is 0 (zero).

Example `revc-psbf-count = 42`

Location APS-STAT

redirect-address

Description Specifies an IP address to which matching packets are redirected. Port redirection enables you to redirect any TCP or UDP packet to a specified server on the basis of its protocol and port information. For example, you can redirect HTTP traffic to a Web cache server on a local network.

Usage Specify an IP address. Packets that match the `protocol` setting received on the port specified in the `port-number` parameter are redirected to the specified address.

Example `set redirect-address = 3.3.3.3/28`

Location CONNECTION:port-redirect-options

See Also `port-redirect-options`

reelect-time

Description Specifies the number of seconds that the node waits after losing connectivity to the current peer group leader before restarting the process of electing a new peer group leader.

Usage Specify the number of seconds to wait. The default vale is 15 seconds.

Example `set reelect-time = 15`

Location `PNNI-NODE-CONFIG[n]:node-pgl`

regional

Description *Not currently used.* Specifies a regional number from 0 to 104 representing the highest level of the PNNI hierarchy that lies within the regional scope. The default value is 32.

relative-delay

Description Read-only. Indicates the latest measured delay on this link relative to the link, in the same inverse multiplexing over ATM (IMA) group, with the least delay.

Usage The valid range for this read-only value is from 0 through 2147483647.

Example `relative-delay = 0`

Location `DS1-ATM-STAT:ima-link-status`

remote-address

Description Specifies an IP address of the remote device, which can include a subnet specification. If the address does not include a subnet mask, the router assumes the default subnet mask based on address class.

The system uses this value to match the address presented by an incoming IP connection.

Usage Specify an IP address. The default is the null address (`0.0.0.0/0`).

Example `set remote-address = 1.2.3.4/32`

Location `CONNECTION:ip-options`

remote-configuration

Description *Not used.*

remote-shelf-enabled

Description Specifies whether the remote shelves sensors trap (notification) is enabled.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the remote shelves sensors trap is enabled.
- `no`—Specifies that the remote shelves sensors trap is disabled.

Example `set remote-shelf-enabled = no`

Note To enable the system to send traps related to sensors on remote shelves, the following parameters must be set to `yes` (their default value):

```
[in TRAP/""]
remote-shelf-enabled = yes
watchdog-warning-enabled = yes
```

Location `TRAP`

See Also `watchdog-warning-enabled`

remote-shelf-id

Description The shelf ID of the remote shelf. This value is set by the system when it detects the remote shelf across the cascade port.

Usage The `remote-shelf-id` value is read-only. The value is the shelf identification number preceded by `shelf-` of the remote shelf.

Example `remote-shelf-id = shelf-3`

Location `REMOTE-SHELF-CONFIG`
`REMOTE-SHELF-STAT`

remote-shelf-oper-state

Description The operational state of the remote shelf.

Usage This parameter is read-only. The following list summarizes possible values:

`remote-shelf-oper-state-down`	The remote shelf is down, a non-operational state.
`remote-shelf-oper-state-up`	The remote shelf is operating normally.
`remote-shelf-link-failed`	Link failure was detected on the link connecting this remote shelf to the main shelf.
`remote-shelf-discovering`	Remote shelf discovery in progress.
`remote-shelf-discovery-up`	Remote shelf discovered.
`remote-shelf-ms-link-down`	The logical control channel is down between this remote shelf and the host.

Example `remote-shelf-oper-state = remote-shelf-oper-state-up`

Location `REMOTE-SHELF-STAT`

remote-shelf-type

Description Displays the type of remote shelf.

Usage The `remote-shelf-type` value is read-only. It must always display `stngr-cascaded-mrt in` Stinger MRT multishelf systems.

Example `remote-shelf-type = stngr-cascaded-mrt`

Location `REMOTE-SHELF-CONFIG`

repeat-ustat

Description Enables or disables sending two USTAT messages each time a USTAT message is required.

Usage This parameter is disabled by default.

Example `repeat-ustat = no`

Location `ATM-IF-SIG-PARAMS:qsaal-options`

reqd-state

Description The required operational state of the module in the slot. Changing this value initiates a change to the required state.

Usage Specify one of the following values:

- `reqd-state-up`—The module is required to be in a normal operating state.
- `reqd-state-down`—The module is required to be in the down state.
- `reqd-state-maint`—The module is required to be in the maintenance state.

Example `set reqd-state = reqd-state-down`

Location `SLOT-ADMIN`

restart-after-trap

Description Specifies whether you want to continue testing after a trap (notification) is generated.

Usage Specify one of the following settings:

- `yes`—Specifies that testing continues after a trap is generated.
- `no` (the default)—Specifies that testing does not continue after a trap is generated.

Example `set restart-after-trap = yes`

Dependencies This parameter has no effect in the case of profiles created for multiple testing. In that case, the test is always restarted.

Location `ATM-OAM:loopback-config`

restrict-redundancy-enabled

Description *Not used.*

Location `BASE`

retransmit-interval

Description Specifies the number of seconds between retransmissions of Open Shortest Path First (OSPF) protocol packets. OSPF uses the `retransmit-interval` value for link state advertisement (LSA) transmissions, and for retransmitting Database Description and Link State Request packets.

Usage Specify a number greater than zero. The default is 5.

Example `set retransmit-interval = 15`

Location `IP-INTERFACE:ospf`
`CONNECTION:ip-options:ospf-options`

retry-count

Description Specifies the number of times the system retransmits control packets in the attempt to establish or reestablish a tunnel. Any change you make to this value takes effect when the previous timer expires.

Usage Specify a number from 1 to 10. The default is 6.

Example `set retry-count = 10`

Dependencies This counter works with the `first-retry-timer` parameter in establishing and maintaining tunnel sessions.

Location `L2-TUNNEL-GLOBAL:l2tp-config`

retry-limit

Description Specifies the maximum number of failed attempts to establish an Ascend Tunnel Management Protocol (ATMP) tunnel to the primary Home Agent before switching to the secondary Home Agent.

Together with the `retry-timeout` setting, this parameter specifies how many tunnel RegisterRequest and DeregisterRequest messages are sent and the number of seconds between each message. Both parameters have default settings that are appropriate for most sites.

Usage Specify a number, from 1 through 100. The default is 10.

Example `set retry-limit = 25`

Location `ATMP`

retry-time

Description *Not currently used.* Specifies the number of seconds the node waits before attempting to reestablish a switched virtual channel connection (SVCC) where that RCC appears to be still necessary and viable but that has unexpectedly terminated.

Location `PNNI-NODE-CONFIG:node-svcc-rcc`

retry-timeout

Description Specifies the number of seconds between retries to establish an Ascend Tunnel Management Protocol (ATMP) tunnel.

Together with the `retry-limit` setting, this parameter specifies how many tunnel RegisterRequest and DeregisterRequest messages are sent and the number of seconds between each message. Both parameters have default settings that are appropriate for most sites.

Usage Specify a number of seconds, from 1 through 120. The default is 3.

Example `set retry-timeout = 5`

Location `ATMP`

revertive-mode

Description Specifies or indicates, according to the profile, whether the connection returns to the working line from the protection line once the working line has recovered in an automatic protection switching (APS) system.

Usage Valid values are as follows:

- `revertive` (the default)—The connection reverts to the working line once it is restored and the waiting time to revert has elapsed. The default is `revertive`.
- `non-revertive`—The connection does not revert to the working line once it is restored.

Example `set revertive-mode = non-revertive`

Location `APS-CONFIG`
`APS-STAT`

rexmit-delay

Description Specifies the number of seconds between retransmissions of Open Shortest Path First (OSPF) protocol packets between virtual links.

OSPF uses the `xmit-delay` value for link state advertisement (LSA) transmissions, and for retransmitting Database Description and Link State Request packets.

Usage Specify a number greater than zero. The default is 1.

Example `set rexmit-delay = 15`

Location `OSPF-VIRTUAL-LINK`

ringer

Description Indicates the results of a copper loop test (CLT) module ringer detection test.

Usage Read-only value with one of the following values:

- `no`—Ringer is not detected.
- `yes`—Ringer is detected.

Example `ringer = yes`

Location `CLT-RESULT`

rip

Description Enables or disables Routing Information Protocol (RIP) updates on the interface.

Usage Specify one of the following values:

- `routing-off`—Do not send routing updates, and ignore any routing updates received for the connection. This is the default.
- `routing-send-only`—Send RIP-v1 routing updates, but ignore any received for the connection.
- `routing-recv-only`—Do not send RIP-v1 routing updates, but accept any routing updates received for the connection.
- `routing-send-and-recv`—Send RIP-v1 routing updates and accept any received for the connection.
- `routing-send-only-v2`—Send RIP-v2 routing updates, but ignore any received for the connection.
- `routing-recv-only-v2`—Do not send RIP-v2 routing updates, but accept any routing updates received for the connection.
- `routing-send-and-recv-v2`—Send RIP-v2 routing updates and accept any received for the connection.

Example `set rip = routing-send-only-v2`

Location `CONNECTION:ip-options`
`IP-INTERFACE`

See Also `ip-interface, ip-options`

rip2-use-multicast

Description Enables or disables use of the multicast address (224.0.0.9) rather than the broadcast address for RIP updates. By default, RIP updates use the multicast address.

Usage Valid values are as follows:

- `yes` (the default)—Enables RIP-v2 to use the multicast address (224.0.0.9) instead of the broadcast address for its updates.
- `no`—Disables the use of the multicast address for RIP updates. Use this setting if you must use the broadcast address for backward compatibility with other systems.

Example `set rip2-use-multicast = yes`

Dependencies This setting does not apply when `rip-mode` specifies RIP version 1.

Location `IP-INTERFACE`

rip-mode

Description Specifies whether the interface should run Routing Information Protocol (RIP) version 1 or RIP version 2, and whether it should send updates, receive them, or both.

The Internet Engineering Task Force (IETF) has voted to move RIP-v1 into the *historic* category, and its use is no longer recommended. You should upgrade all routers and hosts to RIP-v2. If you must maintain RIP-v1, Lucent Technologies recommends that you create a separate subnet, and place all RIP-v1 routers and hosts on that subnet.

Usage Valid values are as follows:

Value	Specifies that the Stinger unit
`routing-off` (the default)	Does not send routing updates, and ignores any routing updates it receives for the connection.
`routing-send-only`	Sends RIP-v1 routing updates, but ignores any it receives for the connection.
`routing-recv-only`	Does not send RIP-v1 routing updates, but accepts any routing updates it receives for the connection.
`routing-send-and-recv`	Sends RIP-v1 routing updates and accepts any it receives for the connection.
`routing-send-only-v2`	Sends RIP-v2 routing updates, but ignores any it receives for the connection.
`routing-recv-only-v2`	Does not send RIP-v2 routing updates, but accepts any routing updates it receives for the connection.
`routing-send-and-recv-v2`	Sends RIP-v2 routing updates and accepts any it receives for the connection.

Example `set rip-mode = routing-send-only-v2`

Location `IP-INTERFACE`

rip-policy

Description Specifies the policy for sending update packets that include routes received on the same interface when the system supports RIP-v1.

Usage Valid values are as follows:

- `poison-rvrs` (the default)—Propagate routes back to the subnet from which they were received, but with a metric of 16 (infinite metric).
- `split-horzn`—Do not propagate routes back to the subnet from which they were received.

Example `set rip-policy = split-horzn`

Dependencies This setting applies only when the system supports RIP-v1. In a `vrouter` profile, default settings related to RIP are recommended for most sites.

Location `IP-GLOBAL`
`VROUTER`

See Also `ip-global, vrouter`

rip-pref

Description Specifies the default preference for routes that the system learns from RIP. When choosing the routes to put in the routing table, the router first compares their preference values, preferring the lowest number. If the preference values are equal, the router compares the metric values, using the route with the lowest metric.

Usage Specify a number from 0 to 255. A value of 255 prevents the use of the route. Following are the default preferences for different types of routes:

- 0 (zero)—Connected routes
- 10—OSPF routes
- 30—Routes learned from ICMP redirects
- 100—Routes learned from RIP
- 100—Static routes
- 100—ATMP routes

Example `set rip-pref = 50`

Location `IP-GLOBAL`

rip-queue-depth

Description Specifies the maximum number of RIP packets to be held for processing. To prevent delays in routing, UDP processing runs at a lower priority than the processing of routed packets. On a system busily routing packets, this behavior can cause a backlog of UDP packets to build up. This parameter specifies how many RIP update packets to queue before the system begins dropping RIP packets.

Usage Specify the maximum number of RIP update packets to queue. Valid values are from 0 through 1024. The default value is 50.

- The value of 0 means that the queue is unlimited.
- If you specify a nonzero queue depth, the Stinger unit is more likely to drop UDP packets when it is busy routing packets, but time-sensitive routed packets are less likely to be delayed and system memory is used more efficiently.

Example `set rip-queue-depth = 128`

Location `IP-GLOBAL`

rip-tag

Description Specifies a tag to associate with RIP routes. A tag is a 32-bit hexadecimal number.

Usage Specify a 32-bit hexadecimal number. The default is c8:00:00:00.

Example `set rip-tag = cf000000`

Location `IP-GLOBAL`

rip-trigger

Description Enables or disables RIP triggering. RIP triggering enables the router or virtual router to tag routes that have been updated in the routing table and send updates that include only the changed routes.

Changes occur when a call arrives or disconnects, RIP learns a route from another router, or the administrator modifies a route-related profile. The router broadcasts updates 5 to 8 seconds after the first change in the routing table is detected. The delay helps to prevent constant updates during peak traffic conditions. The result is reduced processing overhead for both the router and its neighbors.

Usage Valid values are as follows:

- `yes` (the default)—Tag changes to the routing table and include only the tagged routes in the next RIP update, 5 to 8 seconds after the first change in the table is detected.
- `no`—Send full table updates every 20 to 40 seconds. To prevent RIP routers on a network from synchronizing and sending large updates in unison, the full table update is no longer broadcast at fixed 30-second intervals.

Example `set rip-trigger = yes`

Dependencies In a `vrouter` profile, default settings related to RIP are recommended for most sites.

Location `IP-GLOBAL`
`VROUTER`

rlogin

Description *Not used.*

rlop-bip-error-count

Description Read-only. Indicates the number of Receive Line Overhead Processor (RLOP) Bit Interleaved Parity (BIP-8) errors. The RLOP is responsible for line-level alarms and performance monitoring.

Usage The `rlop-bip-error-count` value is read-only.

Example `rlop-bip-error-count = 0`

Location `OC3-ATM-STAT`

rlop-fee-error-count

Description Read-only. Indicates the number of Receive Line Overhead Processor (RLOP) far-end block errors (FEBEs).

Usage The `rlop-febe-error-count` value is read-only.

Example `rlop-febe-error-count = 0`

Location `OC3-ATM-STAT`

robust-count

Description A threshold of packet losses up to which the multicast subsystem will remain robust.

Usage Specify a number from 2 through 2. If the interface is expected to have a high rate of packet loss, increase this value. IGMP is robust to this value -1. It cannot be set to zero and should not be set to 1. The default is 2.

Example `set robust-count = 5`

Location `CONNECTION:ip-options:igmp-options`

root

Description Specifies the name of the `connection` profile to be intercepted (the root profile).

Usage Specify a name. The default is null.

Example `set root = myconnection`

Dependencies Consider the following:

- When you write the leaf profile with the name of a valid `connection` profile in the `atm-options` subprofile, the system creates a unidirectional connection from the VCC defined in the `atm-options` subprofile of the specified root profile to the VCC (the `nailed-group`, `vpi`, and `vci` values) defined in the `atm-options` subprofile of the leaf profile. Then the system begins transmitting the intercepted traffic to the leaf end point.
- When you write the leaf profile with the name of a valid `connection` profile in the `atm-connect-options` subprofile, the system creates a unidirectional connection from the VCC defined in the `atm-connect-options` subprofile of the specified root profile to the VCC defined in the `atm-connect-options` subprofile of the leaf profile. Then the system begins transmitting the intercepted traffic to the leaf end point.
- The system always uses the highest-priority queue for outbound intercepted traffic. Therefore, in a leaf `connection` profile, the following settings are ignored:

```
[in CONNECTION/"":atm-qos-options]
usr-up-stream-contract = default
usr-dn-stream-contract = default
```

Location CONNECTION:atm-connect-options
CONNECTION:atm-options

route-address

Description Specifies an IP address. After applying the value specified by route-mask parameter, the system compares the result to routes in a RIP packet. If it finds a route with a matching destination, it takes the action specified in the route filter.

Usage Specify an IP address. The default is 0.0.0.0, which matches all addresses.

Example `set route-address = 3.3.3.3`

Dependencies This setting applies only if the type parameter in the input-filter or output-filter subprofile is set to route-filter.

Location FILTER:input-filters[*n*]:route-filter
FILTER:output-filters[*n*]:route-filter

route-filter

Description Specifies the name of a filter profile that defines a route filter. The specified route filter will be applied to the interface.

Usage Specify the filter name. The default is null, which indicates no filter.

Example `set route-filter = route-test`

Location CONNECTION:ip-options
IP-INTERFACE

route-id

Description Specifies the current route ID of a Stinger unit.

Usage The route-id setting is a complex field that consists of one component: id.

Example `set route-id id = 140`

Location DEVICE-STATE

route-mask

Description Specifies a mask that the system applies to the value specified by route-address parameter before comparing the resulting value to routes in a RIP update packet.

You can use this value to hide the host portion of an address, or its host and subnet portion. After translating the mask and address into binary format, the system applies the mask to the address by performing a logical AND operation. The mask hides the portion of the address that appears behind each binary 0 (zero) in the mask.

Usage Specify a mask in decimal notation.

- The default is 0.0.0.0, which masks all bits.
- A mask of all ones (255.255.255.255) masks no bits, so the specified `route-address` value must exactly match a route in a RIP update packet for the comparison to succeed.

Example `set route-mask = 255.255.255.255`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `route-filter`.

Location `FILTER:input-filters[n]:route-filter`
`FILTER:output-filters[n]:route-filter`

route-port

Description *Not used.*

router-id

Description Specifies the router IP address.

Usage Specify the IP address including the netmask field if applicable.

Example `set router-id = 192.207.23.13`

Location `IP-GLOBAL`

See Also `ignore-icmp-redirects`

route-tns-id

Description Specifies the value of the transit network identifier.

Usage Specify a string to identify the transit network.

Example `set route-tns-id = mixxx0`

Location `PNNI-ROUTE-TNS:tns-index`

route-tns-index

Description Specifies an index that distinguishes between multiple listings of connectivity to a given transit network from the local node.

Usage Only the number 1 is currently supported.

Example `set route-tns-index = 1`

Location `PNNI-ROUTE-TNS:tns-index`

route-tns-plan

Description Specifies a network identification plan according to which network identification has been assigned.

Usage Valid values are as follows:

- `carrier-ident-code`
- `other`—This is the default.

Example `set route-tns-plan = other`

Location `PNNI-ROUTE-TNS:tns-index`

route-tns-type

Description Specifies the type of network identification used for this transit network.

Usage Valid values are as follows:

- `other`—Unspecified. This is the default.
- `reject`—A route that discards traffic
- `internal`—Directly attached to the logical node advertising the address
- `exterior`—Reachable through the PNNI routing domain, but not located in the PNNI routing domain.

Example `set route-tns-type = other`

Location `PNNI-ROUTE-TNS:tns-index`

routing-metric

Description Specifies a RIP-style metric for the route. RIP is a distance-vector protocol that uses hop count as its metric. Among routes with the same destination address and equal preference values, a higher metric means that the system is less likely to choose the route.

Usage Specify a number from 1 to 15. The default value is 1.

Example `set routing-metric = 5`

Location `ANSWER-DEFAULTS:ip-answer`
`CONNECTION:ip-options`

routing-protocols-disabled

Description *Not used.*

Location `BASE`

rp-address

Description IP address of the rendezvous point (RP). The address must be reachable throughout the domain.

Usage Specify an IP address in dotted decimal notation.

Example `set rp-address = 1.1.1.3`

Location PIM-GROUP-RP-MAPPING

rpop-bip-error-count

Description Read-only. Indicates the number of Receive Path Overhead Processor (RPOP) Bit Interleaved Parity 8 (BIP-8) errors. The RPOP interprets pointers and extracts path overhead and the synchronous payload envelope. It is also responsible for path-level alarms and for monitoring performance.

Usage The rpop-bip-error-count value is read-only.

Example rpop-bip-error-count = 0

Location OC3-ATM-STAT

See Also rlop-bip-error-count, rsop-bip-error-count

rpop-febe-error-count

Description Read-only. Indicates the number of Receive Path Overhead Processor (RPOP) Far End Block Errors (FEBEs).

Usage The rpop-febe-error-count value is read-only.

Example rpop-febe-error-count = 0

Location OC3-ATM-STAT

See Also rlop-febe-error-count

rsop-bip-error-count

Description Read-only. Indicates the number of Receive Section Overhead Processor (RSOP) Bit Interleaved Parity 8 (BIP-8) errors. The RSOP synchronizes and descrambles frames, and provides section-level alarms and performance monitoring.

Usage The rsop-bip-error-count value is read-only.

Example rsop-bip-error-count = 0

Location OC3-ATM-STAT

See Also rlop-bip-error-count, rpop-bip-error-count

running-secs

Description Read-only. Indicates the number of seconds that this inverse multiplexing over ATM (IMA) group has been in the operational state.

Usage The valid range for this read-only parameter is from 0 through 2147483647.

Example `running-secs = 53461`

Location `IMA-GROUP-STAT`

rx-avail-cellrate

Description Read-only. Indicates the current cell rate (truncated value in cells per second) provided by this inverse multiplexing over ATM (IMA) group in the receive direction, considering all the receive links in the Active state.

Usage The valid range for this read-only parameter is from 0 through 2147483647.

Example `rx-avail-cellrate = 0`

Location `IMA-GROUP-STAT`

rx-frame-length

Description Read-only. Indicates the value of inverse multiplexing over ATM (IMA) frame length as received from remote IMA function.

Usage Valid values for this read-only parameter are as follows:

Option	Description
32	IMA frame is 32 cells long.
64	IMA frame is 64 cells long.
128	IMA frame is 128 cells long.
256	IMA frame is 256 cells long.

Example `rx-frame-length = 128`

Location `IMA-GROUP-STAT`

rx-ima-id

Description Read-only. Indicates the inverse multiplexing over ATM (IMA) ID currently in use by the near-end IMA function.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `rx-ima-id = 0`

Location `IMA-GROUP-STAT`

rx-k1-byte-value

Description Read-only. Indicates the current value of the K1 byte received on the protection channel in the automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 255.

Location APS-STAT

rx-k2-byte-value

Description Read-only. Indicates the current value of the K2 byte received on the protection channel in the automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 255.

Location APS-STAT

rx-lid

Description Read-only. Indicates the receiving link identifier (Rx-Lid) of the link.

Usage The valid range for this read-only parameter is from 0 through 31.

Example rx-lid = 0

Location DS1-ATM-STAT:ima-link-status

rx-lid-learning-time

Description *Not currently used.* Specifies the maximum amount of time in milliseconds allowed for learning the receiving link ID (the Rx Lid value) in IMA Control Protocol (ICP) cells.

Usage The valid range is from 0 through 2147483647.The default value is 100.

Example **set rx-lid-learning-time = 100**

Location DS1-ATM:line-config:ima-option-config:rxlink-config

rx-min-num-links

Description Specifies the minimum number of receiving links to be active in order for the inverse multiplexing over ATM (IMA) group to remain in the operational state.

Usage Specify a number from 1 and 8. The default value is 1.

Example **set rx-min-num-links = 1**

Location IMAGROUP

rxmt-interval

Description Pertains to Private Network-to-Network Interface (PNNI). Specifies the number of seconds between retransmissions of unacknowledged Database summary packets, PPNI Topology State Element (PTSE) Request packets, and PPNI Topology State Packets (PTSPs).

Usage Specify the number of seconds. The default value is 5.

Example `set rxmt-interval = 5`

Location `PNNI-NODE-CONFIG[n]:node-timer`

See Also `peer-delayed-ack-interval`
`ptse-holddown`
`ptse-lifetime-factor`
`ptse-refresh-interval`

rx-num-active-links

Description Read-only. Indicates the number of links that are configured to receive and are currently active in this inverse multiplexing over ATM (IMA) group.

Usage The valid range for this read-only parameter is from 0 through 24.

Example `rx-num-active-links = 4`

Location `IMA-GROUP-STAT`

rx-num-config-links

Description Read-only. Indicates the number of links that are configured to receive in this inverse multiplexing over ATM (IMA) group.

Usage The valid range for this read-only parameter is from 0 through 24.

Example `rx-num-config-links = 2`

Dependencies The value of this parameter is overwritten by the value of the Tx-Num-Active-Links parameter in the `ima-group-stat` profile when the IMA group is configured in the SymmetricalConfiguration group symmetry mode.

Location `IMA-GROUP-STAT`

rx-oam-label-value

Description Read-only. Indicates the inverse multiplexing over ATM (IMA) OAM Label value transmitted by the far end (FE) IMA unit. A value of 0 likely means that the IMA unit has not received an Administration, Operations, and Maintenance (OAM) label from the FE IMA unit at this time.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `rx-oam-label-value = 3`

Location IMA-GROUP-STAT

rx-sdu-size

Description Specifies the maximum ATM adaptation layer 5 (AAL5), common part convergence layer (CPCS), service data unit (SDU) size that is supported in the receive direction of this virtual channel connection (VCC).

Usage Specify the number of octets in a range for 0 to 65535. The default value is 0.

Example `set rx-sdu-size = 32`

Location ATM-VCL-CONFIG

rx-signal-present

Description Read-only. Indicates whether the line is receiving signal from the remote end or not.

Usage Valid values for this read-only parameter are as follows:

- yes—Indicates that the local node is receiving a signal from the remote customer premises equipment (CPE).
- no—Indicates that the local node is not receiving a signal from the remote.

Example `rx-signal-present = yes`

Location AL-DMT-STAT:physical-statistic
HDSL2-STAT:physical-statistic
SDSL-STAT:physical-statistic
SHDSL-STAT:physical-statistic

rx-stuffs-counter

Description Read-only. Indicates the count of stuff events detected in the receive direction.

Usage The valid range for this read-only parameter is from 0 through 2147483647.

Example `rx-stuffs-counter = 0`

Location DS1-ATM-STAT:ima-link-statistic

See Also Elapsed-Seconds, Tx-Stuffs-Counter

rx-test-pattern

Description Read-only. Indicates the test pattern received in the IMA control protocol (ICP) cell (octet 17) on the link during the inverse multiplexing over ATM (IMA) test pattern procedure.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `rx-test-pattern = 0`

Location DS1-ATM-STAT:ima-link-status

rx-testproc-status

Description Read-only. Indicates the current state of the test pattern procedure.

Usage Valid values for this read-only parameter are as follows:

- disabled—Test pattern procedure is currently disabled on this link.
- operating—Test pattern procedure is currently operating on this link.
- link-fail—Test pattern procedure has failed on this link.

Example rx-testproc-status = disabled

Location DS1-ATM-STAT:ima-link-status

rx-timing-ref-link

Description Read-only. Indicates the index of the receive timing reference link.

This index is used by the near end for inverse multiplexing over ATM (IMA) data cell clock recovery. The Rx-Timing-Ref-Link is used to recover the clock from the physical layer and uses that recovered clock as a reference when it delivers cells to the higher layer, which is the ATM layer.

Usage Specify a number from 0 through 24. The distinguished value of zero may be used if no link has been configured in the IMA group, or if the receive timing reference link has not yet been detected.

Example rx-timing-ref-link = 1

Location IMA-GROUP-STAT

rx-traffic-desc

Description The ATM traffic descriptor index applied to the receive direction of the virtual channel link (VCL).

Usage Specify a numeric value in the range 0 to 4294967295. The default value is 1.

Example **set rx-traffic-desc = 100**

Location ATM-VCL-CONFIG
ATM-VPL-CONFIG

S

saal-retry-ms

Description In Asynchronous Transfer Mode (ATM), specifies the number of milliseconds allowed to lapse before retrying ATM adaptation layer (AAL) establish messages.

Usage Valid values are from 1000 to 5000.

Example `set saal-retry-ms = 10000`

Location `ATM-IF-SIG-PARAMS[`*n*`]:q2931-options]`

save-level

Description Specifies the lowest level of log messages the Stinger unit displays in the log status window. The unit logs all messages that are at the specified level or higher. For example, if `alert` is specified, all messages at Alert, and Emergency level are logged.

Usage Valid values are as follows:

Value	Lowest-level message indicates
`none`	The Stinger unit does not display log messages.
`emergency`	The unit has an error condition and is unlikely to be operating normally.
`alert`	The unit has an error condition but is still operating normally.
`critical`	An interface has gone down or a security error has occurred.
`error`	An error event has occurred.
`warning`	An unusual event has occurred, but the unit is otherwise operating normally. For example, this type of message appears when a login attempt has failed because the user entered an incorrect user name or password.
`notice`	Events of interest in normal operation have occurred (a link going up or down, for example).
`info` (the default)	State and status changes that are commonly not of general interest have occurred.
`debug`	Helpful debugging information.

Example `set save-level = error`

Dependencies Log levels are also configurable on a per-user basis in `user` profiles.

Location `LOG`

save-number

Description Specifies the maximum number of log messages that the Stinger unit saves for display in the status windows.

Usage Specify an integer. The default is 100.

Example `set save-number = 150`

Location LOG

scrambling-enabled

Description *Not currently used.* Specifies whether the payload of transmitted cells is scrambled or not.

Usage Valid values are as follows:

- yes—Enables the descrambling of received cells on the link. The payload of transmitted cells is scrambled.
- no— Disables the descrambling of received cells on the link. The payload of transmitted cells is not scrambled. This is the default.

Example `set scrambling-enabled = yes`

Location DS1-ATM:line-config

See Also frame-type

screen-length

Description Specifies the number of lines displayed in the command-line window. (For the values to take effect, the user must log in again.)

Usage Specify a number from 24 to 999. The default is 24 lines.

Example `set screen-length = 68`

Location USER

See Also status-length

screen-width

Description Specifies the screen width for all command line interface sessions subsequent to the current session.

Usage Specify a number from 80 (the default) to 255.

Example `set screen-width = 255`

Location USER

See Also screen

sdsl-atm

Description Specifies whether code images for SDSL-48-Port Line Interface Modules (LIMs) should be stored in Flash memory.

Usage Valid values are as follows:

- `auto` —Causes the system to load images for cards that are installed in the Stinger unit, and to skip images for cards that are not installed. This is the default.
- `load`—Causes the system to load the image, even if there is no card of that type installed.
- `skip`—Causes the system to skip the image, even if there is a card of that type installed.

Example `set sdsl-atm = auto`

Location `LOAD-SELECT`

sdsl-atm-v2

Description Specifies whether code images for SDSL-ATM-v2 cards should be stored in Flash memory.

Usage Valid values are as follows:

- `auto` —Causes the system to load images for cards that are installed in the Stinger unit, and to skip images for cards that are not installed. This is the default.
- `load`—Causes the system to load the image, even if there is no card of that type installed.
- `skip`—Causes the system to skip the image, even if there is a card of that type installed.

Example `set sdsl-atm-v2 = auto`

Location `LOAD-SELECT`

sdtn

Description *Not used.*

Location `BASE`

sealing-current-on

Description Enables or disables the sealing current function for testing purposes for all xDSL ports of the slot.

Usage Valid values are as follows:

- `yes`—Sets sealing current on.
- `no` (the default)—Sets sealing current off.

Example `set sealing-current-on = no`

Dependencies Currently only the SDSL and HDSL2 LIMs have the hardware to support sealing current for testing purposes.

The `xdsl-slot-config` profile is used to configure parameters at slot level that are common to all xDSL LIMs. By default, an `xdsl-slot-config` profile is created with an index of `[any-shelf any-slot 0]`. You can then create a profile for a particular slot with shelf 1 slot 0 as the index. The item number of the index must be 0.

Location `XDSL-SLOT-CONFIG`

See Also `SLOT-INFO (profile)`

sec-domain-name

Description Specifies a secondary domain name to use for Domain Name System (DNS) lookups if the hostname is not found in the primary domain.

When specified in a `vrouter` profile, this DNS setting is exclusive to the virtual router. If DNS settings are not specified in a `vrouter` profile, the virtual router uses the DNS settings defined in the `ip-global` profile

Usage Specify a domain name.

Example `set sec-domain-name = eng.abc.com`

Location `IP-GLOBAL`
`VROUTER`

secondary-controller-state-change-enabled

Description Enable or disables a trap (notification) when the secondary controller changes state.

Usage Valid values are as follows:

- `no`—Disables a trap when the secondary controller changes state. This is the default value.
- `yes`—Enables a trap when the secondary controller changes state.

Example `set secondary-controller-state-change-enabled = yes`

Location `TRAP`

secondary-tunnel-server

Description Specifies the IP address or hostname of a secondary tunnel end point. If the primary server is unavailable, the system attempts to establish a tunnel to the secondary server.

Usage Specify the following, according to the tunneling protocol:

- For Layer 2 Tunneling Protocol (L2TP) tunneling, optionally specify the address or name of a secondary L2TP network server (LNS).
- For Ascend Tunnel Management Protocol (ATMP) tunneling, optionally specify the address or name of a secondary Home Agent.

Example admin> **set secondary-tunnel-server = 3.3.3.3/24**

In an ATMP mobile-client profile, the value can include a UDP port number, which must match the UDP port specified in the Home Agent `atmp` profile. For example,

admin> **set secondary-tunnel-server = 3.3.3.3:1155**

Dependencies If you specify a hostname and a DNS lookup returns several IP addresses, the system attempts to establish a tunnel to each address in turn.

Location CONNECTION:tunnel-options

seconds-history

Description Specifies the number of seconds to use as the basis for calculating average line utilization (ALU).

When the ALU exceeds or falls below the `target-utilization` percentage for a specified number of seconds, the Stinger unit adds or subtracts bandwidth.

Usage Specify an integer from 1 to 300. The default is 15 seconds.

The number of seconds you specify must be related to traffic patterns. For example, if you want to average spikes with normal traffic flow, you might want the Stinger unit to base ALU on a longer time period. If, on the other hand, traffic patterns consist of many spikes that are short in duration, you might want to specify a shorter period of time to give less weight to the short spikes.

Example **set seconds-history = 60**

Location ANSWER-DEFAULTS:mpp-answer
CONNECTION STATION:mpp-options

See Also `target-utilization`

section-state

Description Read-only. Indicates the state of the SONET section. A SONET section is a single run of cable. Section-terminating equipment is any adjacent pair of switches.

Usage The `section-state` value is read-only. Valid values are as follows:

- `sonet-disabled`—SONET is disabled.
- `sonet-section-active-no-defect`—SONET section is active with no defect.
- `sonet-section-loss-of-signal`—SONET section is in a loss-of-signal state.
- `sonet-section-loss-of-frame`—SONET section is in a loss-of-frame state.

Example section-state = sonet-section-active-no-defect

Location OC3-ATM-STAT

security-enabled

Description Specifies whether the Stinger unit traps security events and sends a trap (notification) protocol data unit (PDU) to the Simple Network Management Protocol (SNMP) manager. Security events notify users of security problems and track access to the unit.

The Stinger unit can trap the following security events:

Event	Indication
`authentication`	An authentication failure occurred.
`console`	Console associated with the passed console index has changed state. To read the console's state, get ConsoleEntry from the Ascend Enterprise MIB.
`useexceeded`	Specific port has exceeded the number of DS0 minutes allocated to it.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit sends security-event traps to the host specified by `host-address`.
- `no`—Specifies that the Stinger unit does not send security-event traps. This is the default.

Example `set security-enabled = yes`

Location `TRAP`

security-level

Description Specifies the level of security to use when generating messages.

Usage Valid values are as follows:

- `none`—Specifies no authentication and no privacy. This is the default.
- `auth-nopriv`—Specifies authentication and no privacy.
- `auth-priv`—Specifies authentication and privacy.

Example `set security-level = auth-priv`

Dependencies Consider the following:

- For `auth-priv` to apply, you must set the `priv-protocol` and `priv-password` parameters in the `snmpv3-usm-user` profile.
- When you specify the `auth-priv` setting, all user transmissions with a security level of `none` or `auth-nopriv` are rejected with the error message `Unsupported Security Level`.

Location `SNMP`
`SNMPV3-TARGET-PARAM`

security-mode

Description *Not used.*

security-model

Description Specifies the security model to use when generating SNMP messages.

Usage Valid values are as follows:

- v1—Specifies the SNMP version 1 security model. This is the default.
- v3-usm—Specifies the SNMP version 3 User-Based Security Model (USM). For SNMPv3 Notifications support, specify v3-usm. Specify this value for view-based access control model (VACM) support

Example `set security-model = v3-usm`

Dependencies Consider the following:

- You can specify v1 only when you have also set Msg-Proc-Model to V1.
- You can specify v3-usm only when you set Msg-Proc-Model to V3.
- When security-model is set to v3-usm, you must configure an snmpv3-usm-user profile, with the name specified for the security-name parameter, in order for the snmpv3-target-param profile to have any effect.

Location SNMPV3-TARGET-PARAM
VACM-SECURITY:security-properties

security-name

Description Specifies a name used inSimple Network Management Protocol (SNMP) version 3 USM. The security name identifies the user on whose behalf SNMPv3 USM messages are generated.

Usage Specify up to 22 characters. The default is null.

Example `set security-name = newuser`

Dependencies Security-Name applies only if Security-Model is set to V3-USM.

Location SNMPV3-TARGET-PARAM
VACM-SECURITY:security-properties

selection-end

Description Read-only. Indicates the time at which the controller in this context detected the end of remote selection.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example selection-end = 123

Location REDUNDANCY-STATS:context-stats

selection-start

Description Read-only. Indicates the time at which the controller in this context selected a function.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `selection-start = 123`

Location `REDUNDANCY-STATS:context-stats`

select-reason

Description Read-only. Indicates the basis on which the controller in this context was assigned the current function.

Usage Read-only parameter with the following possible values:

- `defer-to-running-primary`
- `no-running-primary`
- `single-controller-operation`
- `local-primary-preference`
- `remote-primary-preference`
- `local-crash`
- `remote-crash`
- `local-local-local-error`
- `remote-local-local-error`
- `local-remote-local-error`
- `remote-remote-local-error`
- `local-matches-chassis`
- `remote-matches-chassis`
- `prior-pair-function`
- `local-primary-resources`
- `remote-primary-resources`
- `local-secondary-resources`
- `remote-secondary-resources`
- `prior-local-primary`
- `prior-remote-primary`
- `local-crash-history`
- `remote-crash-history`
- `local-local-local-error-history`
- `remote-local-local-error-history`
- `local-remote-local-error-history`
- `remote-remote-local-error-history`
- `local-slot-number`

- remote-slot-number
- contention-resolution
- unable-to-acquire-buses
- communication-loss

Location REDUNDANCY-STATS:context-stats

self-test

Description Read-only. Indicates whether the module has passed the power-on self test (POST).

Usage Valid values for this read-only parameter are as follows:

- passed—Indicates that the module passed the POST.
- failed—Indicates that the module failed the POST.

Example self-test = passed

Location AL-DMT-STAT:physical-statistic
HDSL2-STAT:physical-statistic
SDSL-STAT:physical-statistic
SHDSL-STAT:physical-statistic

send-auth-mode

Description Specifies the authentication protocol the system uses to send a password to the calling device during bidirectional Challenge Handshake Authentication Protocol (CHAP) authentication.

Usage Specify one of the following values:

- no-ppp-auth (the default)—Does not use bidirectional authentication.
- pap-ppp-auth—Not supported for bidirectional CHAP.
- chap-ppp-auth—Uses CHAP to send a password to the calling device.
- ms-chap-ppp-auth—Uses Microsoft's extension of CHAP, designed mostly for Windows NT and LAN Manager platforms.

Example **set send-auth-mode = chap-ppp-auth**

Dependencies Bidirectional authentication is applicable only if the send authentication mode is CHAP or MS-CHAP. These settings are used only when bi-directional-auth is enabled.

Location CONNECTION:ppp-options

send-code

Description Specifies the type of code pattern to send to the DS1-ATM interface.

Usage Following are the valid values:

- no-code (the default)—Sends looped or normal data.

- `line-code`—Sends a request for a line loopback.
- `payload-code`—Sends a request for a payload loopback.
- `reset-code`—Sends a loopback termination request.
- `qrs-code`—Sends a quasi-random signal (QRS) test pattern.
- `511-pattern`—Sends a 511-bit fixed-test pattern.
- `3-in-24-pattern`—Sends a fixed test pattern of 3 bits set in 24.
- `1-in-16-pattern`—Sends a fixed test pattern of 1 bit set in 16.
- `all-ones-pattern`—Sends a fixed test pattern of all ones.
- `all-zeros-pattern`—Sends a fixed test pattern of all zeros.
- `alt-ones-zeros-pattern`—Sends a fixed test pattern of alternating ones and zeros.
- `dbl-alt-ones-zeros-pattern`—Sends a fixed test pattern of double alternating ones and zeros.
- `2-pow-20-pattern`—Sends the pseudorandom pattern type (`2**20 - 1`) (ITU-T recommendation O.151).

Example `set send-code = 1-in-16-pattern`

Location `DS1-ATM:line-config`

See Also `frame-type, line-interface, fdl`

send-code-status

Description Specifies the current state of the Send-Code sent over a DS1 line.

Usage The following are valid values:

- `disabled`—Specifies that the SendCode procedure is currently disabled on this link.
- `line-loopback`—Specifies that line loopback has been requested to the remote end
- `payload-loopback`—Specifies that payload loopback has been requested to the remote end

Example `set send-code-status = line-loopback`

Location `DS1-ATM-STAT {shelf`*N* `slot`*N N*`}`

See Also `fdl, pattern-test-status`

send-icmp-dest-unreachable

Description *Not supported.* Specifies whether the unit sends Internet Control Message Protocol (ICMP) destination-unreachable packets. Setting this parameter to `no` can break required behavior for IPv4 routers, such as path MTU discovery. It is intended for use only in voice over IP applications.

Location `IP-GLOBAL`

send-password

Description Specifies the password the system sends to the calling device during bidirectional Challenge Handshake Authentication Protocol (CHAP) authentication.

Usage Specify up to 20 characters. The password is case sensitive.

Example `set send-password = unit0`

Dependencies Bidirectional authentication is applicable only if the send authentication mode is CHAP or MS-CHAP. These settings are used only when `bi-directional-auth` is enabled.

Location `CONNECTION:ppp-options`

serial-number

Description Read-only. Displays the unit's serial number.

Usage The `serial-number` setting is read-only.

Example `serial-number = 6201732`

Location `BASE`
`SLOT-INFO`

See Also `software-level, software-revision, software-version`

server-auth-id

Description Specifies the Layer 2 Tunneling Protocol (L2TP) network server (LNS) system name used for tunnel authentication. This name is sent to the L2TP access concentrator (LAC) in Start-Control-Connection-Reply (SCCRP) packets.

Usage Specify up to 31 characters. The default is null.

Example `set server-auth-id = caserver`

Dependencies This setting is currently ignored if specified in a `connection` profile.

Location `CONNECTION:tunnel-options`
`TUNNEL-SERVER`

server-endpoint

Description Specifies the IP address or hostname of the Layer 2 Tunneling Protocol (L2TP) network server (LNS). Usually, this is the same value as the `Tunnel-Server-Endpoint` RADIUS attribute, but it can differ.

Usage Specify a hostname or IP address. The default is the null address. If you specify a hostname, the system performs a Domain Name System (DNS) lookup for the IP address. The default is null.

Example `set server-endpoint = 1.1.1.1`

Location TUNNEL-SERVER

service

Description Not used.

Location TERMINAL-SERVER

service-name

Description Name assigned to multicast service.

Usage Specify up to 31 alphanumeric characters. The default is null.

Example `set service-name = gold`

Location MCAST-SERVICE

ses-adsl-dmt-down-rate

Description Specifies the per-session ADSL DMT downstream data rate, in bits per second.

Usage Valid values are as follows:

128000
256000
384000
512000
640000
768000
960000
1280000
1600000
1920000
2240000
2560000
2688000
3200000
4480000
5120000
6272000
7168000
8000000—This is the default.
8960000
9504000
auto

Example `set ses-adsl-dmt-down-rate = 9504000`

Location CONNECTION:session-options

ses-adsl-dmt-up-rate

Description Specifies the per-session ADSL DMT downstream data rate, in bits per second.

Usage Valid values are as follows:

128000
256000
384000
512000
640000
768000
800000
896000
928000—This is the default.
1088000
auto

Example `set ses-adsl-dmt-up-rate = 800000`

Location `CONNECTION:session-options`

ses-rate-mode

Description Specifies the DSL data rate mode for the connection.

Usage Select one of the following values:

- `autobaud` (the default)—Specifies that a DSL modem should train up to a set data rate. If a DSL modem cannot train to this data rate, it connects to the closest rate to which it can train (the modem's ceiling rate).
- `singlebaud`—Causes the system to train to a single data rate, even if the DSL modem can train at a higher or lower data rate. If the DSL modem cannot train to the specified single rate, the connection fails.

Example `set ses-rate-mode = singlebaud`

Location `CONNECTION:session-options`

ses-rate-type

Description Specifies the per-session modem type for rate control.

Usage Valid values are as follows:

- `disabled` (the default)—Specifies that modem rate control is not active for the connection.
- `SDSL`—Specifies SDSL modem rate control.
- `adsl-dmt-cell`—Specifies ADSL modem rate control.

Example `set ses-rate-type = sdsl`

Location `CONNECTION:session-options`

ses-sdsl-rate

Description Specifies the symmetrical data rate. This setting applies to connections on the SDSL LIM.

Usage Specify one of the following values:

144000
160000
192000
208000
272000
384000
400000
416000
528000
768000
784000
1040000
1152000
1168000
1536000
1552000
1568000
1680000
1920000
2160000
2320000

Example `set ses-sdsl-rate = 1552000`

Location `CONNECTION:session-options`

See Also `Ses-Rate-Type`

session-id

Description ID number of the user session.

Usage This parameter is read-only.

Example `session-id = 2`

Location `cmd-log`

sessionid-base

Description Specifies the base number the Stinger unit uses for generating a unique ID for each session.

The Stinger unit can pass a session ID to SNMP, RADIUS, or other external entities. If the value of SessionID-Base is nonzero, the Stinger unit uses it as the initial base for calculating session IDs after a system reset. The ID for each subsequent session is incremented by 1. If SessionID-Base is zero, the Stinger unit sets the initial base for

session IDs to the absolute clock. For example, if the clock is 0x11cf4959, the subsequent session IDs use 0x11cf4959 as a base. However, if the clock is changed and the system reboots or clears NVRAM, session IDs might be duplicated.

Usage Specify an integer from 1 to 2147483647. The default is 0 (zero), which causes the Stinger unit to use the absolute clock to generate a session ID base.

Example `set sessionid-base = 0`

Dependencies You can also set a session ID base by using the Set SessID command in the terminal-server interface. The terminal server provides a Show SessID command to display the next session ID the unit will use.

Location `SYSTEM`

severely-errored-second

Description Read-only. Indicates the number of 1-second intervals during which at least 50 cyclic redundancy check (CRC) anomalies are declared or one or more loss of synchronous word (LOSW) defects are declared.

Usage The `severely-errored-second` setting is a read-only display for checking operations.

Example `severely-errored-second = 1`

Location `HDSL2-STAT:physical-statistic`
`SHDSL-STAT:physical-statistic`

See Also `errored-second, losw-second, unavailable-second`

shared-prof

Description Enables or disables multiple callers sharing a single `connection` profile. Sharing profiles is recommended only for *low-security* networks.

Sharing profiles can be enabled on two levels: globally in the `ip-global` profile, or connection-specific in a `connection` profile. Once you enable shared profiles globally, you cannot disable it for an individual connection. However, if you disable shared profiles globally, you can enable it for specific connections only. This functionality is also available in RADIUS profiles via the `ascend-shared-profile-enable` attribute.

Usage Valid values are as follows:

- `yes`—Allows more than one caller to share the same profile and password, provided that no IP address conflicts result.
- `no` (the default)—Does not allow shared profiles.

Example `set shared-prof = no`

Dependencies Profiles with a hard-coded remote IP address cannot be shared.

Location `CONNECTION`
`IP-GLOBAL`

shared-secret

Description Specifies a value used by both the Layer 2 Tunneling Protocol (L2TP) access concentrator (LAC) and the L2TP network server (LNS) ends of an L2TP tunnel to authenticate tunnel requests initiated by local `connection` profiles.

Usage Specify the text of the shared secret, up to 21 characters. The default is null.

Example `set shared-secret = 3f4tr`

Location `TUNNEL-SERVER`

share-global-pool

Description Enables or disables the ability of a virtual router to share the address pools configured in the `ip-global` profile.

When this feature is enabled, a virtual router can use its own address pools, which are configured in its `vrouter` profile, but cannot assign addresses from the pools defined in the `ip-global` profile.

Usage Valid values are as follows:

- `yes` (the default)—If no address pools are configured for the virtual router, or if its pools have no free addresses, a `connection` profile in the virtual router's domain can be assigned an IP address from the pool defined in the `ip-global` profile.
- `no`—If no address pools are configured for the virtual router, or if its pools have no free addresses, `connection` profile in the virtual router's domain that requires dynamic address assignment are unable to establish a connection.

Example `set share-global-pool = no`

Location `VROUTER`

shelf

Description Specifies or indicates, according to the profile, the shelf in which an item resides. The shelf number is always 1 for Stinger units.

Usage For a `device-address` or `physical-address` profile, specify the integer 1. In an `error` profile, the shelf setting is read-only.

Example `set shelf = 1`

Location `cmd-log`
`DEVICE-ADDRESS`
`ERROR`
`PHYSICAL-ADDRESS`

shelf-controller-type

Description The `shelf-controller-type` configures the unit to initialize operation in the appropriate mode.

Note After a unit's `shelf-controller-type` has been changed, it must be reset for the change to become effective.

Usage Valid values are as follows:

- `standalone` (the default)—Configures the shelf to operate in standalone mode. This is a valid value for a Stinger control module (CM)or Stinger micro-remote terminal (MRT).
- `master`—Configures the host shelf to serve as the master controller. This is a valid value for a Stinger CM or Stinger MRT.
- `slave`—Configures a remote shelf to operate in slave mode. This is a valid value for a Stinger compact remote terminal (CRT) or Stinger MRT.

Example `set shelf-controller-type = master`

Dependencies A user can not change the value of `shelf-controller-type` to `standalone` if at least one `remote-shelf-config` profile was configured. All `remote-shelf-config` profiles must be deleted before this change is allowed.

Location `SYSTEM`

shelf-number

Description Read-only. Indicates the shelf number of the Stinger unit.

Usage The `shelf-number` is always 1 for Stinger units.

Example `shelf-number = 1`

Location `BASE`
`FRDLCI-STAT`

short-location

Description Specifies the distance detected to the short circuit in a copper loop test (CLT).

Usage Specify the number of units. The distance is reported in centimeters if units are set to metric. The distance is reported in hundredths of feet if units are set to English. The default value of 0 (zero) specifies that no short circuit is to be detected.

Example `set short-location = 52`

Dependencies The `shortloc-unit` parameter must be set to the appropriate unit to make `short-location` effective.

Location `CLT-RESULT`

shortloc-gauge

Description Specifies the gauge of the cable in the loop of a copper loop test (CLT).

Usage Valid values are as follows:

- In English units, the value is 22, 24, or 26 AWG.
- In metric units, the value is 4, 5, or 6 tenths of a millimeter.

Example `set shortloc-gauge = 4`

Dependencies The `shortloc-unit` parameter must be specified correctly to make the `shortloc-gauge` parameter effective.

Location `CLT-COMMAND`

shortloc-type

Description Specifies the type of short circuit test in a copper loop test (CLT).

Usage Valid values are as follows:

- `detect`—Short circuit detection occurs prior to the measurement of the short circuit location. This is the default value.
- `nodet`—Short circuit detection does not occur prior to the measurement of the short circuit location.

Example `set shortloc-type = detect`

Location `CLT-COMMAND`

shortloc-unit

Description Specifies the units of measurement for short circuit location test in a copper loop test (CLT).

Usage Valid values are as follows:

- `english`—English units are used for the measurement.
- `metric`—Metric units are used for the measurement. This is the default value.

Example `set shortloc-unit = metric`

Dependencies The `shortloc-gauge` parameter must be specified correctly to make the `shortloc-unit` parameter effective.

Location `CLT-COMMAND`

signalling-state

Description Read-only. Indicates the signaling state of the port.

Usage Valid values are as follows:

- `not-configured`—The component is not configured.

- `up`—The component is in an `up` state.
- `down`—The component is in a `down` state.

Example `signalling-state = up`

Location `ATM-IF-STAT`

See Also `pnni-link-state, port-state`

sig-vcc-rx-qos-name

Description Name of the quality-of-service (QoS) contract (`atm-qos` profile) used during Integrated Local Management Interface (ILMI) autoconfiguration to specify the advertised signaling virtual channel connection (VCC) traffic parameters for the receive direction. *ILMI is not supported with the current software version.*

Usage Enter up to 31 alphanumeric characters. You can specify the name of any configured `atm-qos` profile. The default value is `default-ctl`.

Example `set sig-vcc-rx-qos-name = rx-ctl`

Location `ATM-IF-CONFIG:extension-config`

sig-vcc-rx-tdesc-index

Description *ILMI is not currently used.* Specifies the traffic descriptor index which is used during the Integrated Local Management Interface (ILMI) autoconfiguration to specify the advertised signaling virtual channel connection (VCC) traffic parameters for the receive direction.

Usage The default value of 2 specifies the `default-ctl` traffic descriptor used for Private Network-to-Network Interface (PNNI) signaling and routing control.

Example `sig-vcc-tx-tdesc-index = 2`

Location `ATM-IF-CONFIG:extension-config`

sig-vcc-tx-qos-name

Description Name of the quality-of-service (QoS) contract (`atm-qos` profile) used during ILMI autoconfiguration to specify the advertised signaling virtual channel connection (VCC) traffic parameters for the transmit direction. *ILMI is not supported with the current software version.*

Usage Enter up to 31 alphanumeric characters. You can specify the name of any configured `atm-qos` profile. The default value is `default-ctl`.

Example `set sig-vcc-tx-qos-name = tx-ctl`

Location `ATM-IF-CONFIG:extension-config`

sig-vcc-tx-tdesc-index

Description *ILMI is not currently used.* Specifies the traffic descriptor index used during Integrated Local Management Interface (ILMI) autoconfiguration to specify the advertised signaling virtual channel connection (VCC) traffic parameters for the transmit direction.

Usage The default value of 2 specifies the `default-ctl` traffic descriptor used for Private Network-to-Network Interface (PNNI) signaling and routing control.

Example `set sig-vcc-rx-tdesc-index = 2`

Location `ATM-IF-CONFIG:extension-config`

silent-mode

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

single-file-incoming

Description Specifies whether the Stinger unit treats incoming calls as a single-file list, or handles them in parallel.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit answers and routes one call before answering and routing the next call. This is the default.
- `no`—Specifies that the Stinger unit answers and routes an incoming call immediately.

Example `set single-file-incoming = yes`

Location `SYSTEM`

See Also `parallel-dialing`

site-minus-1

Description *Not currently used.* Specifies the number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the site, minus one scope.

Usage Specify a number from 0 to 104. The default value is 80.

Example `set site-minus-1 = 80`

Location `PNNI-NODE-CONFIG[`*n*`]:node-scope-mapping`

site-plus-1

Description *Not currently used.* Specifies the number representing the highest level of the Private Network-to-Network Interface (PNNI) hierarchy that lies within the site, plus one scope.

Usage When this parameter becomes available, you will be able to specify a number from 0 to 104. The default value is 72.

Example `set site-plus-1 = 72`

Location `PNNI-NODE-CONFIG N:node-scope-mapping`

See Also `intra-site`
`local-net`
`local-net-plus-1`

slip

Description *Not used.*

Location `TERMINAL-SERVER:slip-mode-configuration`

slip-bootp

Description *Not used.*

Location `TERMINAL-SERVER:slip-mode-configuration`

slot

Description Specifies or indicates, depending on the profile, the number of an item's expansion slot. Stinger slots are numbered as follows:

- In a Stinger FS or Stinger FS+, the line interface module (LIM) slots are numbered from 1 to 16, with slots 8 and 9 reserved for the control module(s). Slots 17 and 18 are reserved for the trunk modules.
- in a Stinger LS or Stinger RT, the LIM slots are numbered from 1 to 5 for the model 1 chassis, and from 1 to 7 for the model 2 chassis. Slots 8 and 9 are reserved for the control module(s). Slots 17 and 18 are reserved for the trunk modules.
- In a Stinger MRT, the built-in LIM operates from virtual slot 1. The built-in controller operates from virtual slot 8. The built-in trunk module operates from slot 17, and the plug-in trunk module operates from slot 18.

Usage For a `device-address` or `physical-address` setting, specify an integer from 1 to 18. In an `error` profile, the `slot` setting is read-only.

Example `set slot = 10`

Location `cmd-log`
`DEVICE-ADDRESS`

ERROR
PHYSICAL-ADDRESS

slot-address

Description Indicates or specifies the physical address of the slot.

Usage For any Stinger unit, the shelf number is always 1. Stinger slots are numbered as follows:

- In a Stinger FS or Stinger FS+, the line interface module (LIM) slots are numbered from 1 to 16, with slots 8 and 9 reserved for the control modules (CM). Slots 17 and 18 are reserved for the trunk modules.
- In a Stinger LS or Stinger RT, the LIM slots are numbered from 1 to 5 for the model 1 chassis and 1 to 7 for the model 2 chassis. Slots 8 and 9 are reserved for the control modules. Slots 17 and 18 are reserved for the trunk modules.
- In a Stinger MRT, the built-in LIM operates from virtual slot 1. The built-in control module operates from virtual slot 8. The built-in trunk module operates from slot 17, and the plug-in trunk module operates from slot 18.

In most cases, the value of `slot-address` is obtained from the system. However, you can clone a profile by reading an existing one and changing its physical address.

Example Use the following examples to help you:

- To modify the value after reading a `slot-info`, `slot-state`, or `slot-type` profile, use the `list` and `set` commands. For example:

```
admin> list slot-address
[in SLOT-INFO/{ shelf-1 slot-9 37 }:slot-address]
shelf=shelf-1
slot=slot-9
item-number=37

admin> set shelf = shelf-2
```

- As an alternative, you can simply use the `set` command:

```
admin> set slot-address shelf = shelf-2
```

Location SLOT-INFO
SLOT-STATE
SLOT-TYPE

See Also `physical-address`

slot-cac-enable

Description Enable/disable connection admission control (CAC) on the line interface module (LIM) slot. Slot-level CAC is enabled by default with this new setting.

Usage Valid values are as follows:

- `yes` (the default)—CAC on the LIM slot is enabled.
- `no`—CAC on the LIM slot is disabled.

Example `set slot-cac-enable = no`

Location SLOT-STATIC-CONFIG

slot-enabled

Description Specifies whether the Stinger unit traps changes of state in a host interface and sends a trap (notification) protocol data unit (PDU) to the Simple Network Management Protocol (SNMP) manager.

Usage Valid values are as follows:

- `yes`—Specifies that the Stinger unit sends a trap PDU to the host specified by `host-address`.
- `no` (the default)—Specifies that the host does not receive a trap.

Example `set slot-enabled = yes`

Location TRAP

slot-number

Description Read-only. Indicates the slot number of the line interface module (LIM) or trunk module on a Stinger unit owning the virtual channel connection (VCC) on an Asynchronous Transfer Mode (ATM) link.

Usage The `slot-number` value is read-only, and can be one of the following:

`Any-Slot`
`Slot-1`
`Slot-2`
`Slot-3`
`Slot-4`
`Slot-5`
`Slot-6`
`Slot-7`
`Control-Module`—Primary control module (CM) slot
`Control-Module-2`—Secondary control module (CM) slot
`Slot-10`
`Slot-11`
`Slot-12`
`Slot-13`
`Slot-14`
`Slot-15`
`Slot-16`
`Trunk-Module-1`—Trunk module 1 pseudo-slot
`Trunk-Module-2`–Trunk module 2 pseudo-slot
`Slot-Forward`—Control module forward pseudo-slot

Example `set slot-number = slot-10`

Location `ATMPVC-STAT:vcc-members:vcc members[`*n*`]`
`ATMVCC-STAT:vcc-ident`
`FRDLCI-STAT`

slot-over-subscription

Description Specifies oversubscription to a LIM slot's provisioned guaranteed upstream bandwidth.

Usage Integer value from 0 to 10,240. The default value is 10. A value of zero disables slot CAC.

Example `set slot-cac-oversubscription = 5000`

Location `SLOT-STATIC-CONFIG`

slot-profile-change-enabled

Description Specifies whether the system generates a trap (notification) when a `slot-state` profile changes.

A trap indicates that a `slot-state` profile has been created as a result of slot insertion, or that a slot state has transitioned to `oper-state-down`, `oper-state-up`, `oper-state-dump`, or `oper-state-none`.

Usage Valid values are as follows:

- `yes`—Specifies that the system generates a trap. This is the default.
- `no`—Specifies that the system does not generate a trap.

Example `set slot-profile-change-enabled = no`

Location `TRAP`

See Also `current-state`
`slot-type`

slot-type

Description Read-only. Indicates the type of device in the slot. If the actual type of device identified by the system at startup differs from the type indicated by `slot-type`, the Stinger unit determines that you have changed slot cards. It then deletes the old Simple Network Management Protocol (SNMP) interface numbers.

Usage Valid values are as follows:

Value	Indicates
`cm`	Control module in slot 8 and 9.
`dadsl-atm-24-card`	24-port DMT ADSL ATM LIM.
`ds3-atm2-card`	DS3-ATM trunk module.
`ds3-atm-card`	DS3-ATM module.
`ds3-atm-trunk-daughter-card`	DS3-ATM trunk daughter module.
`e3-atm-card`	E3-ATM trunk module
`e3-atm-trunk-daughter-card`	E3-ATM trunk daughter module.

Value	Indicates
glite-atm-48-card	48-port G-lite ADSL LIM.
hdsl2-card	32-port SHDSL/HDSL2 LIM.
ima-24-e1-card	24-port E1 module.
ima-24t1-card	24-port T1 module.
ima-8-e1-card	8-port E1 module.
ima-8-t1-card	8-port T1 module
mrt-36-adsl-card	Stinger MRT ADSL ports
none	No module present in the addressed slot.
oc3-atm-card	OC3-ATM trunk module.
oc3-atm-trunk-daughter-card	OC3-ATM trunk daughter module.
router-card	T1000 module.
sdsl-atm-v2-card	48-port SDSL v2 LIM.
stngr-40a-adsl-card	40-port ADSL CT Annex A LIM.
stngr-48a-adsl-card	48-port ADSL Annex A LIM.
stngr-48b-adsl-card	48-port ADSL Annex B LIM.
stngr-48c-adsl-card	48-port ADSL Annex C LIM.

Example slot-type = dadsl-atm-24-card

Dependencies You can also display the slot type for a particular device by using the terminal-server Show command.

Location ADMIN-STATE-PHYS-IF
SLOT-TYPE

See Also slot
slot-address
SLOT-INFO
slot-type

slot-vpi-vci-range[*n*]

Description *Deprecated and not used.*

Location ATM-CONFIG:slot-vpi-vci-range

See Also SLOT-STATIC-CONFIG

snext-margin

Description Specifies the amount of compensation for self-noise generated by adjacent SHDSL lines in the same bundle. A value other than `disable` reduces the maximum rate that the loop trains at.

Usage Valid values are as follows:

`0db`
`1db`
`2db`
`3db`
`4db`
`5db`
`6db`
`7db`
`8db`
`9db`
`10db`
`-10db`
`-9db`
`-8db`
`-7db`
`-6db`
`-5db`
`-4db`
`-3db`
`-2db`
`-1db`
`disable` (the default)

Example `set snext-margin = 3db`

Dependencies This parameter applies only if the `rate-mode` parameter is set to `auto-mode`.

Location `HDSL2:line-config`
`SHDSL:line-config`

snmp-illegal-access-attempt

Description Enables or disables the Ascend security alert trap (notification).

Usage Select one of the following values.

- `no`—Disables the Ascend security alert trap. This is the default value.
- `yes`—Enables the Ascend security alert trap.

Example `set snmp-illegal-access-attempt = yes`

Location `TRAP`

snmp-interface

Description Read-only. Indicates the Simple Network Management Protocol (SNMP) interface number assigned to the device by the system.

At system startup, the Stinger unit reads the `admin-state-perm-if` and `admin-state-phys-if` profiles. If the addressed device is not present in the system and has been replaced by a device of another type, the unit deletes the profile associated with the device. The next time the unit is reset or powered off and on, the old device's SNMP interface number is made available for reassignment.

Removing a module and leaving the slot empty, however, does not free up interface numbers. If you reinstall the module, the unit reassigns the same interface number. In addition, removing a module and replacing it with a module of another type does not immediately free up the old interface numbers. New numbers are assigned to the new module, and the old numbers become available at the next power cycle or system reset.

Usage The SNMP-Interface setting is read-only.

Example `snmp-interface = 65`

Location `ADMIN-STATE-PERM-IF`
`ADMIN-STATE-PHYS-IF`

See Also `SNMP (profile)`

snmp-message-type

Description Specifies the version of Simple Network Management Protocol (SNMP) used by the SNMP agent in the unit.

Usage Valid values are as follows:

- `v1-and-v3`—Causes the SNMP agent to use both SNMPv1 and SNMPv3 protocols. This is the default.
- `v1-only`—Causes the SNMP agent to use only the SNMPv1 protocol and discard any other types of messages.
- `v3-only`—Causes the SNMP agent to use only the SNMPv3 protocol and discard other types of messages.

Example `set snmp-message-type = v3-only`

Location `SNMP-MANAGER`

See Also `Security-Level`

snmp-trap-enable

Description Enable or disables SNMP traps. A trap occurs when the client joins or leaves a multicast group.

Usage Allowable values are:

- `yes`—Enables SNMP traps.

- `no` (the default)—Disables SNMP traps.

Example `set snmp-trap-enable = yes`

Location `MCAST-SERVICE`

snr-margin

Description Read-only. Indicates the signal-to-noise ratio on the line, in decibels. The signal-to-noise ratio defines a relationship between the noise floor and the signal.

Usage The `snr-margin` setting is read-only.

Example `snr-margin = 40`

Dependencies Line quality of 24dB or higher is required for reliable data transfer..

Location `SHDSL-STAT:physical-statistic`

soft-ip-interface-addr

Description *Deprecated and not used.*

See Also `IP-INTERFACE`

software-debug

Description Enables or disables software debug message logging.

Usage Select one of the following values:

- `no`—Software debug messages are discarded. This is the default value.
- `yes`—Sofware debug messages are included with log level debug messages.

Example `set software-debug = yes`

Location `LOG`

software-level

Description Read-only. Indicates the software-version level of the control module code.

Usage The `software-level` setting is read-only.

Example `software-level = H`

Location `BASE`
`SLOT-INFO`

See Also hardware-level
software-release
software-revision
software-version

software-release

Description Read-only. Displays the engineering or candidate release number of the software image.

Usage The software-release setting is read-only.

Example software-release = 9.2-167

Location SLOT-INFO

See Also hardware-level
software-revision
software-version

software-revision

Description Read-only. Indicates the software revision number of the unit.

Usage The software-revision setting is read-only.

Example software-revision = 1

Location BASE
SLOT-INFO

See Also hardware-level
software-revision
software-version

software-version

Description Read-only. Indicates the software version of the unit.

Usage The software-version setting is read-only.

Example software-version = 1.0

Dependencies You can also use the version command to view the current system software version.

Location BASE
SLOT-INFO

See Also hardware-level
software-release
software-revision

sonet-far-end-line-coding-violations

Description Read-only. Indicates the number of bit-interleaved parity errors at the far-end device's Line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-far-end-line-coding-violations` value is read-only.

Example `sonet-far-end-line-coding-violations = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-line-errored-seconds

Description Read-only. Indicates the number of errored seconds at the far-end device's Line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-far-end-line-errored-seconds` value is read-only.

Example `sonet-far-end-line-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-line-severely-errored-seconds

Description Read-only. Indicates the number of severely errored seconds at the far-end device's Line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-far-end-line-severely-errored-seconds` value is read-only.

Example `sonet-far-end-line-severely-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-line-unavailable-seconds

Description Read-only. Indicates the number of unavailable seconds at the far-end device's line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-far-end-line-unavailable-seconds` value is read-only.

Example `sonet-far-end-line-unavailable-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-path-coding-violations

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of bit-interleaved parity errors at the far-end device's Path layer. A path is an end-to-end circuit.

Usage The `sonet-far-end-path-coding-violations` value is read-only.

Example `sonet-far-end-path-coding-violations = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-path-errored-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of errored seconds at the far-end device's Path layer. A path is an end-to-end circuit.

Usage The `sonet-far-end-path-errored-seconds` value is read-only.

Example `sonet-far-end-path-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-path-severely-errored-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of severely errored seconds at the far-end device's path layer. A path is an end-to-end circuit.

Usage The `sonet-far-end-path-severely-errored-seconds` value is read-only.

Example `sonet-far-end-path-severely-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-far-end-path-unavailable-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of unavailable seconds at the far-end device's Path layer. A path is an end-to-end circuit.

Usage The `sonet-far-end-path-unavailable-seconds` value is read-only.

Example `sonet-far-end-path-unavailable-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-line-coding-violations

Description Read-only. Indicates the number of bit-interleaved parity errors at the unit's line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-line-coding-violations` value is read-only.

Example `sonet-line-coding-violations = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-line-errored-seconds

Description Read-only. Indicates the number of errored seconds at the unit's line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-line-errored-seconds` value is read-only.

Example `sonet-line-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-line-severely-errored-seconds

Description Read-only. Indicates the number of severely errored seconds at the unit's line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-line-severely-errored-seconds` value is read-only.

Example `sonet-line-severely-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-line-unavailable-seconds

Description Read-only. Indicates the number of unavailable seconds at the unit's line layer. A Synchronous Optical Network (SONET) line consists of one or more sections.

Usage The `sonet-line-unavailable-seconds` value is read-only.

Example `sonet-line-unavailable-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-path-coding-violations

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of bit-interleaved parity errors at the unit's path layer. A path is an end-to-end circuit.

Usage The `sonet-path-coding-violations` value is read-only.

Example `sonet-path-coding-violations = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-path-errored-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of errored seconds at the unit's path layer. A path is an end-to-end circuit.

Usage The `sonet-path-errored-seconds` value is read-only.

Example `sonet-path-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-path-severely-errored-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of severely errored seconds at the unit's path layer. A path is an end-to-end circuit.

Usage The `sonet-path-severely-errored-seconds` value is read-only.

Example `sonet-path-severely-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-path-unavailable-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of unavailable seconds at the unit's path layer. A path is an end-to-end circuit.

Usage The `sonet-path-unavailable-seconds` value is read-only.

Example `sonet-path-unavailable-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-section-coding-violations

Description Read-only. Indicates the number of bit-interleaved parity errors at the unit's section layer. A Synchronous Optical Network (SONET) section is a single run of cable. Section-terminating equipment is any adjacent pair of switches.

Usage The `sonet-section-coding-violations` value is read-only.

Example `sonet-section-coding-violations = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-section-errored-seconds

Description Read-only. Indicates the number of errored seconds at the unit's section layer. A Synchronous Optical Network (SONET) section is a single run of cable. Section-terminating equipment is any adjacent pair of switches.

Usage The `sonet-section-errored-seconds` value is read-only.

Example `sonet-section-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-section-severely-errored-framing-seconds

Description Read-only. Pertains to Synchronous Optical Network (SONET). Indicates the number of severely errored framing seconds at the unit's section layer. A SONET section is a single run of cable. Section-terminating equipment is any adjacent pair of switches.

Usage The `sonet-section-severely-errored-framing-seconds` value is read-only.

Example `sonet-section-severely-errored-framing-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

sonet-section-severely-errored-seconds

Description Read-only. Indicates the number of severely errored seconds at the unit's section layer. A Synchronous Optical Network (SONET) section is a single run of cable. Section-terminating equipment is any adjacent pair of switches.

Usage The `sonet-section-severely-errored-seconds` value is read-only.

Example `sonet-section-severely-errored-seconds = 0`

Location `OC3-ATM-STAT:performance-monitoring`
`OC3-ATM-STAT:interval-performance-monitoring`

source-address

Description Specifies an IP address. After applying the `source-address-mask` value, the filter compares the result to the source address in a packet.

Usage Specify an IP address. The default is 0.0.0.0, which matches all IP packets.

Example `set source-address = 2.2.2.2`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `ip-filter`, `route-filter`, or `tos-filter`.

Location `FILTER:input-filters[n]:ip-filter`
`FILTER:output-filters[n]:ip-filter`
`FILTER:input-filters[n]:route-filter`
`FILTER:output-filters[n]:route-filter`
`FILTER:input-filters[n]:tos-filter`
`FILTER:output-filters[n]:tos-filter`

source-address-mask

Description Specifies a mask that a filter applies to the `source-address` value before comparing that value to the source address of a packet. You can use this value to hide the host portion of an address, or its host and subnet portion.

After translating the mask and address into binary format, the system applies the mask to the address by performing a logical AND operation. The mask hides the portion of the address that appears behind each binary 0 (zero) in the mask.

Usage Specify a mask in decimal notation.

- The default is 0.0.0.0, which masks all bits.
- A mask of all ones (255.255.255.255) masks no bits, so the system compares the full destination address of a single host.

Example `set source-address-mask = 255.255.255.224`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `ip-filter`, `route-filter`, or `tos-filter`.

Location `FILTER:input-filters[n]:ip-filter`
`FILTER:output-filters[n]:ip-filter`
`FILTER:input-filters[n]:route-filter`
`FILTER:output-filters[n]:route-filter`
`FILTER:input-filters[n]:tos-filter`
`FILTER:output-filters[n]:tos-filter`

source-ip-check

Description Enables or disables antispoofing for the session.

Usage Valid values are as follows:

- `yes`—Specifies that the system checks all packets received on the interface to ensure that their source IP address matches the combination of address and

subnet mask specified by the `remote-address` value, or the address agreed upon in IPCP negotiation.

- If `remote-address` specifies a subnet, packets that originate on that subnet are accepted.
- If `remote-address` specifies a 32-bit mask, only packets from that host are accepted.
- Packets sent from an address that does not match are discarded.

- `no` (the default)—Specifies that antispoofing for the session is disabled.

Example `set source-ip-check = yes`

Location `CONNECTION:ip-options`

See Also `ip-address`

source-port

Description Specifies the physical address of the line interface module (LIM) slot or the trunk port from which data is permitted into the specified queue.

Usage Specify the physical address using *`shelf`*, *`slot`*, and *`port`*. The wild-card address {`any-shelf any-slot 0`} indicates that data from any port and LIM slot is permitted into this queue.

Example `set source-port = { shelf-1 trunk-module-2 2 }`

Location `SWITCH-CONFIG:atm-parameters:outgoing-queue`

See Also `hop-level`

spared-slot-number

Description Read-only. Indicates the primary line interface module (LIM) associated with the spare LIM specified by `spare-slot-number` parameter.

Usage The `spared-slot-number` value is read-only.

Example `spared-slot-number = 2`

Location `LIM-SPARING-STATUS`

See Also `manually-spared-slot-number`
`sparing-mode`

spare-physical-address

Description Specifies or identifies, depending on the profile, the location of a physical interface or module within the Stinger unit that is acting as a spare. The address has the format {*`shelf slot item`*}. The elements of the address are identified as follows:

- *`shelf`*—Currently, in Stinger units, the shelf number is always 1.

- *slot*—Number of the slot in which the module resides.
- *item*—Number of the interface on the module. Interfaces are numbered starting with 1 for the topmost or leftmost interface on the module. An item number of 0 (zero) denotes the entire slot.

Usage Valid values are as follows:

- In the ds1-atm, ds3-atm, e3-atm or oc3-atm profile, specify a complex value that includes the shelf number, slot number and item (port) number of the spare trunk port. If the current port is the primary trunk port, the value identifies its spare (secondary) trunk port. If the current port is the secondary trunk, the value identifies the primary trunk port.

  To specify the values, include both spare-physical-address and the relevant subfield in each set command.
- In the al-dmt-stat, ds1-atm-stat, d3-atm-stat, e3-atm-stat, hdsl2-stat, oc3-atm-stat, shdsl-stat and the shdsl-stat profiles, the spare-physical-address value is read-only.

Example To set item 1 on the module in slot 18 as a backup interface:

```
admin> set spare-physical-address shelf = 1
admin> set spare-physical-address slot = 18
admin> set spare-physical-address item-number = 1
```

Dependencies In the ds1-atm, ds3-atm, e3-atm, or oc3-atm profile, sparing-state must be set to yes for spare-physical-address to apply.

Location AL-DMT-STAT
DS1-ATM-STAT
DS3-ATM:line-config
E3-ATM
HDSL2-STAT
OC3-ATM
SDSL-STAT
SHDSL-STAT

See Also sparing-state

spare-slot-number

Description Specifies or indicates the slot number containing the spare link interface module (LIM) and path selector module (PSM) or copper loop test (CLT) module.

Usage Valid values are as follows:

- In the lim-sparing-config profile, specify an integer. The default is any-slot. The slot you specify must have a special backup LIM.
- In the lim-sparing-status profile, the spare-slot-number value is read-only. This value is automatically set by the software when the Stinger unit powers up.

Example `set spare-slot-number = 1`

Dependencies spare-slot-number does not apply if sparing-mode is set to inactive.

Location LIM-SPARING-CONFIG
LIM-SPARING-STATUS

See Also manually-spared-slot-number
spare-physical-address

spare-slot-type

Description Type of spare line interface module (LIM) installed in the slot.

For example, suppose a Stinger unit is configured with an asymmetric digital subscriber line (ADSL) LIM in slot 1 and a symmetric digital subscriber line (SDSL) LIM in slot 4. Slot 14 contains a spare SDSL LIM with a path selector module (PSM), and slot 16 contains a spare ADSL LIM also with a PSM.

Usage The default is none. This value is automatically detected and set by the software when the Stinger unit powers up.

Example spare-slot-type = none

Location LIM-SPARING-CONFIG
LIM-SPARING-STATUS

See Also manually-spared-slot-number
spare-physical-address

sparing-change-counter

Description Read-only. Displays a count of each redundancy change, including primary to secondary, secondary to primary, and so on.

Usage The counter is reset on power-up of the Stinger unit.

Example sparing-change-counter = 3

Location DS1-ATM-STAT
DS3-ATM-STAT
E3-ATM-STAT
OC3-ATM-STAT
LIM-SPARING-STATUS
AL-DMT-STAT
HDSL2-STAT
SDSL-STAT
SHDSL-STAT

sparing-change-reason

Description Read-only. Indicates how the redundancy setup has been activated.

Usage Valid read only values are as follows:

- `inactive`—Redundancy is not currently activated on this line interface module (LIM).
- `manual`—The redundancy setup has been manually activated.
- `automatic`—The redundancy setup has been automatically configured.

Example `sparing-change-reason = manual`

Location `DS1-ATM-STAT`
`DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`
`LIM-SPARING-STATUS`
`AL-DMT-STAT`
`HDSL2-STAT`
`SDSL-STAT`
`SHDSL-STAT`

sparing-change-time

Description Read-only. Indicates the time that the last change in the redundancy state occurred.

Usage The `sparing-change-time` value is a read-only display set by the system.

Example `sparing-change-time = 0`

Location `DS1-ATM-STAT`
`DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`
`LIM-SPARING-STATUS`
`AL-DMT-STAT`
`HDSL2-STAT`
`SDSL-STAT`
`SHDSL-STAT`

sparing-mode

Description Enables or disables line interface module (LIM) redundancy, and specifies the redundancy mode to use.

Usage Valid values are as follows:

- `manual`—Enables LIM redundancy by deactivating a LIM and terminating its connections, and then reactivating the connections on the spare LIM.
- `inactive`—Disables the LIM redundancy function. This is the default.
- `automatic`—Allows automatic redundancy to be activated according to the values of the parameters in the `lim-sparing-config:auto-lim-sparing-config:` subprofile.

Example `set sparing-mode = manual`

Location DS1-ATM
DS3-ATM
E3-ATM
AL-DMT
HDSL2
IDSL
LIM-SPARING-CONFIG
LIM-SPARING-STATUS
OC3-ATM
SDSL
SHDSL

sparing-state

Description State of the redundancy function. Specifies or indicates, depending upon the profile in which it occurs, whether the redundancy function for the port is enabled or disabled.

Usage Valid values are as follows:

- sparing-none—Redundancy is not enabled. This is the default.
- primary-active—Redundancy is enabled, and the line interface module (LIM) slot is the primary (spare) LIM.
- primary-inactive—Redundancy is not enabled, and the LIM slot is the primary (spare) LIM.
- secondary-active—Redundancy is enabled, and the LIM slot is the secondary (spare) LIM, and the spare is inactive.
- secondary-inactive—Redundancy is enabled, and the LIM slot is the secondary (spare) LIM, and the spare is active
- not-applicable—Indicates that LIM redundancy is not applicable to this module.

Note In the ds3-atm-stat and oc3-atm-stat profiles, the sparing-state value is read-only.

Example sparing-state = sparing-none

Location DS1-ATM-STAT
DS3-ATM-STAT
E3-ATM-STAT
OC3-ATM-STAT
LIM-SPARING-STATUS
AL-DMT-STAT
HDSL2-STAT
SDSL-STAT
SHDSL-STAT

specific-ports

Description Enables port activation through the `port-activation-array`.

Usage Select one of the following values:

- `no`—Disables port activation through the `port-activation-array.`
- `yes`—Enables port activation through the `port-activation-array.`

Example `set specific-ports = yes`

Dependencies The `start-port` and `end-port` parameters are not valid when `specific-ports` is set to `yes`.

Location `LINE-TESTS`

spid

Description *Not currently used.* Assigns a channel to a trunk group.

Usage Specify a number from 2 to 9.

split-code-dot-user-enabled

Description Specifies whether the system can split usernames longer than five characters under cache-token authentication. This feature permits the use of usernames longer than five characters with a typical 4-digit PIN and 6-digit ACE token code.

Usage Valid values are as follows:

- `yes`—Allows local splitting of usernames.
- `no` (the default)—Does not allow local splitting of usernames.

Example `set split-code-dot-user-enabled = yes`

Location `CONNECTION:ppp-options`

See Also `ppp-options`

spvc-atm-address

Description Specifies the unique Asynchronous Transfer Mode (ATM) target address for each ATM interface in the system (each trunk port and LIM port).

Usage The system assigns defaults, but you can override a default by configuring a parameter explicitly.

Example `set spvc-atm-address = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:+`

Location `ATM-SPVC-ADDR-CONFIG`

spvc-retry-interval

Description Specifies the number of seconds to wait before reattempting to establish the switched permanent virtual channel (SPVC) after a failed call attempt.

Usage The valid range is from 0 (zero) to 3600, with a default of 10 seconds. A 0 (zero) value indicates no retries.

Example `set spvc-retry-interval = 10`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

spvc-retry-limit

Description Specifies the maximum number of consecutive failed call-setup attempts allowed.

Usage The default 0 (zero) value indicates no limit, so that the attempts continue until the setup is successful. If you specify a nonzero value and the limit is reached, a management action such as a switched permanent virtual channel (SPVC) restart via Simple Network Management Protocol (SNMP) is required to reinitiate call setup attempts.

Example `set spvc-retry-limit = 0`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

spvc-retry-threshold

Description Specifies the number of consecutive failed call-setup attempts allowed before the system increments its count of switched permanent virtual channel (SPVC) call failures, which can cause an alarm.

Usage The valid range is from 0 to 65535, with a default of 1 failed call. A zero value specifies an infinite number of call attempts, which disables alarms for the SPVC.

Example `set spvc-retry-threshold = 1`

Location `CONNECTION:atm-options`
`CONNECTION:atm-connect-options`

spvc-target-cac-fail-trap-enabled

Description Enables/disables the Stinger unit from sending traps for soft permanent virtual circuit (SPVC) target call failures.

Usage Valid values are as follows:

- `yes` (the default)—Enables sending traps.
- `no`—Disables sending traps.

Example `set spvc-target-cac-fail-trap-enabled = no`

Location TRAP

src-port-cmp

Description Specifies whether a filter tests for source port numbers that are equal to a specified source-port value, or port numbers that are less than, greater than, or not equal to the specified value.

Usage Valid values are as follows:

- none (the default)—Does not compare source port numbers.
- less—Matches source port numbers less than the source-port value.
- eql—Matches source port numbers equal to the source-port value.
- gtr—Matches source port numbers greater than the source-port value.
- neq—Matches source port numbers not equal to the source-port value.

Example `set src-port-cmp = eql`

Dependencies This setting applies only if the type parameter in the input-filter or output-filter subprofile is set to ip-filter or tos-filter.

Location FILTER:input-filters[*n*]:ip-filter
FILTER:output-filters[*n*]:ip-filter
FILTER:input-filters[*n*]:tos-filter
FILTER:output-filters[*n*]:tos-filter

stack-trace[*n*]

Description Read-only. Indicates the stack trace record created when an error occurred.

Usage The stack-trace setting is read-only. It consists of an array of six elements.

Example `stack-trace = [ 000000 ]`

Location ERROR

standby-upstream-bandwidth-on-trunks

Description *Not currently used.* Read-only. Indicates the total bandwidth of all standby trunks.

Usage The standby-upstream-bandwidth-on-trunks value is read-only.

Example `standby-upstream-bandwidth-on-trunks = 466620`

Location BANDWIDTH-STATS

See Also Active-Upstream-Bandwidth-On-Trunks, max-upstream-bandwidth

start-port

Description First port to be isolated during an isolation or multiport tone test.

Usage Specify a port number between 1 and 72.

Example `set start-port = 3`

Dependencies This parameter is valid only if `specific-port = no`.

Location `LINE-TESTS`

start-with-menus

Description *Not used.*

Location `TERMINAL-SERVER:menu-mode-options`

state

Description Specifies or indicates a state, as follows:

- For the `pnni-summary-addr` profile, specifies the current state of advertising the summary address into the peer group.
- For the `redundancy-stats:context-stats` profile, the current state of the controller in this context.

Usage Valid values are as follows:

- In the `pnni-summary-addr` profile, specify one of the following values:
  - `advertising`—The summary address is being advertised into the peer group.
  - `suppressing`—The advertisement is currently suppressed.
  - `inactive` (the default)—This summary entry is inactive.
- In the `context-stats` profile, `state` is a read-only parameter with the following possible values:
  - `initial`
  - `load-context`
  - `start-post`
  - `local-post`
  - `remote-post`
  - `selecting`
  - `selection-complete`
  - `inauguration`
  - `primary-to-operational`
  - `loading`
  - `secondary-to-operational`
  - `monitoring`
  - `dead`

Example `state = selecting`

Location `PNNI-SUMMARY-ADDR`
`REDUNDANCY-STATS:context-stats`

static-pref

Description Specifies the default preference given to static IP routes.

Usage Specify a number from 0 to 255. A value of 255 prevents the use of the route. Following are the default preferences for different types of routes:

- 0 (zero)—Connected routes
- 10—Open Shortest Path First (OSPF) routes
- 30—Routes learned from Internet Control Message Protocol (ICMP) redirects
- 100—Routes learned from RIP
- 100—Static routes
- 100—Ascend Tunnel Management Protocol (ATMP) routes

Example `set static-pref = 50`

Location `IP-GLOBAL`

station

Description Specifies or indicates, according to the profile, the following name:

- In a `connection` profile, `station` specifies the name of the customer premises equipment (CPE) or remote device on the inbound side of the circuit.
- In a soft permanent virtual circuit (SPVC) `connection` profile, `station` specifies the name of the CPE device followed by a number such as `ray-dsl-1`.
- In the `admin-state-perm-if` profile, `station` indicates the name of a dedicated (nailed-up) or frame relay connection indicated by a `connection` profile or RADIUS user profile.

Usage Valid values are as follows:

- In a `connection` profile, specify the name of the remote station. You can enter up to 31 characters. The value you specify is case sensitive, and must exactly match the name of the remote device. If you are not sure about the exact name, contact the administrator of the remote network. The default is null.
- In the `admin-state-perm-if profile`, the `station` setting is read-only.

Example `set station = robin-gw`

Dependencies The name you specify for `station` is not necessarily a Domain Name System (DNS) hostname. The Stinger unit does not use the `station` name to obtain an IP address.

Location `ADMIN-STATE-PERM-IF`
`CONNECTION`

status-change-trap-enable

Description Specifies whether the Stinger unit generates an SNMP trap (notification) when a T1 line changes state.

Usage Specify `yes` or `no`. The `yes` value specifies that the unit generates the trap. The `no` value (the default) specifies that the unit does not generate the trap.

- `no`—A trap is not generated when a T1 line changes state.
- `yes`—A trap is generated when a T1 line changes state.

Example `set status-change-trap-enable = no`

Location `T1:line-interface`
`DS1-ATM:line-interface`

status-length

Description Specifies the number of lines displayed in the status window, including dividing lines. (For a new value to take effect, the user must log in again.)

Usage Specify a number from 18 to 993. The default is 18 lines.

Example `set status-length = 60`

Dependencies The `status-length` parameter must be less than `screen-length` parameter by at least six lines.

Location `USER`

See Also `left-status`
`screen-length`
`top-status`

stngr-32-idsl

Description *Deprecated and not used.*

Location `LOAD-SELECT`

stur-loop-attenuation

Description Read-only. Indicates the current signal reduction in the loop, in decibels. The `stur-loop-attenuation` value is received by the central office equipment (COE) from the customer premises equipment (CPE), and thus characterizes how the loop attenuation looks from the CPE's perspective.

Usage The `stur-loop-attenuation` setting is read-only.

Example `stur-loop-attenuation = 2`

Location `SHDSL-STAT:physical-statistic`

stur-snr

Description Read-only. Indicates the signal-to-noise ratio on the line, in decibels, as reported by the customer premises equipment (CPE) to the central office equipment (COE).

Usage The `stur-snr` setting is read-only.

Example `stur-snr = 40`

Dependencies An `stur-snr` value of 24dB or higher is required for reliable data transfer. The `stur-snr` value is received by reported message from the CPE, as the result of a direct request from the COE. It reflects the CPE's `snr` value.

Location `SHDSL-STAT:physical-statistic`

sub-channel

Description Specifies which subchannel to associate with this quality of service (QoS) type. This parameter is effective only with ADSL line interface modules (LIMs) that support dual latency.

Usage Valid values are as follows:

- 1—When an ADSL LIM is set to dual-latency, the channel is the `fast` channel. When dual latency is not used, this value is always used.
- 2—When an ADSL LIM is set to dual-latency, the channel is the `interleave` channel.

Example `set sub-channel = 2`

Dependencies The `line-latency-down` and/or `line-latency-up` parameter in the `al-dmt:line-config` subprofile must be set to `both` for both subchannel values to be effective.

Location `ATM-QOS`

sub-persistence

Description Specifies the number of seconds that average line utilization (ALU) must persist below the `target-utilization` threshold before the Stinger unit subtracts bandwidth from the connection.

When subtracting bandwidth, the unit removes the number of channels specified by `decrement-channel-count`. However, it does not clear the base channel of the call, nor does it cause the number of channels to fall below the minimum-channels value.

Usage Specify an integer from 1 to 300. The default is 10.

Example `set sub-persistence = 15`

Dependencies The `sub-persistence` parameter has little effect when the `seconds-history` value is high.

Location ANSWER-DEFAULT:mpp-answer
CONNECTION STATION:mpp-options

subsc-atm-address

Description *Not currently used.* Specifies the switched virtual circuit (SVC) prefix used on the user-network interface (not currently supported) to specify the ATM address prefix to the end system across the interface.

Location ATM-IF-CONFIG:base-config

substitute-recv-name

Description Specifies the name expected from the far end during bidirectional Challenge Handshake Authentication Protocol (CHAP) authentication, if it is different from the `station` name or username of a RADIUS profile.

Usage Specify a name of up to 23 characters. The default is null. Bidirectional authentication requires that the name of the device be checked against a locally defined name. With the default value, the profile name is used.

Example `set substitute-recv-name = cpe-test`

Dependencies The system does not dial out calls, so this name is used only when a session is using bidirectional CHAP authentication.

Location CONNECTION:ppp-options

See Also ppp-options

substitute-send-name

Description Specifies the name sent to the calling device during bidirectional Challenge Handshake Authentication Protocol (CHAP) authentication, if different from the name specified in the `system` profile. You can specify this name in the `answer-defaults` profile, to affect all bidirectional CHAP authentications, or in a `connection` profile, to supply a name specific to a connection.

Usage Specify a name of up to 23 characters. The default is null. Bidirectional authentication requires that the far end checks the name of the called device. With the default value, the system name is used.

Example `set substitute-send-name = stinger-auth-name`

Dependencies The system does not dial out calls, so this name is used only when a session is using bidirectional CHAP authentication.

Location ANSWER-DEFAULTS:ppp-answer
CONNECTION:ppp-options

See Also ppp-answer, ppp-options

subtended-connections-enabled

Description Indicates whether the subtended connections feature is licensed. This feature allows trunk-to-trunk virtual path (VP) switching on the Stinger trunk aggregation module (TRAM).

Usage Valid values are as follows:

- yes—Subtended connections feature is licensed.
- no—Subtended connections feature is not licensed.

Example `subtended-connections-enabled = yes`

Location `BASE`

subtending-hops

Description Number of hops (ATM switches) between the subtending Stinger unit and the virtual circuit endpoint. This value is currently supported only for permanent virtual circuits (PVCs) or permanent virtual paths (PVPs).

Usage This value is the number of hops a subtended virtual circuit coming into this queue must have. Valid values are as follows:

- `any-level`—A virtual circuit originating any number of hops away is permitted.
- `0-level`—Only a virtual circuit originating less than one hop away is permitted. This is the default.
- `1-level`—Only a virtual circuit originating one hop away is permitted.
- `2-level`—Only a virtual circuit originating two hops away is permitted.
- `3-level`—Only a virtual circuit originating three hops away is permitted.

For PVCs, this value is specified by the user. For soft PVCs (SPVCs), the value is initialized to `1-level`.

Example `set subtending-hops = 0-level`

Location `CONNECTION:atm-qos-options`

See Also `atm-qos-options`

summarize-rip-routes

Description Specifies whether to summarize subnet information in RIP-v1 advertisements. If the router summarizes subnet information, it advertises a route to all the subnets in a network of the same class. For example, the route to 200.5.8.13/28 (a class C address) is advertised as a route to 200.5.8.0.

When the virtual router does not summarize information, it advertises each route in its routing table as is.

Usage Valid values are as follows:

- `yes`—Summarizes RIP-v1 subnet information.
- `no` (the default)—Advertises each route as it appears in the routing table.

Example `set summarize-rip-routes = yes`

Dependencies This setting applies only if the `rip` parameter specifies RIP-v1. In a `vrouter` profile, default settings related to RIP are recommended for most sites.

Location `IP-GLOBAL`
`VROUTER`

See Also `ip-global`
`vrouter`

suppress

Description Specifies whether the summary address is advertised (propagated into the peer group) or suppressed.

Usage Valid values are as follows:

- `true`—The unit suppresses the advertisement of addresses that match the prefix.
- `false` (the default)—Specifies that the summary address is propagated.

Example `set suppress = false`

Location `PNNI-SUMMARY-ADDR`

See Also `addr-index, state (in pnni-summary-addr)`

suppress-host-routes

Description Enables or disables suppression of host routes for interfaces with a subnet mask of less than 32 bits. Suppression of host routes occurs as follows:

- If a `connection` profile includes a subnet mask of less than 32 bits in the `remote-address` setting, host routes for the interface are suppressed while the session is being negotiated. After the session is established, only network routes are advertised for the interface.
- If a `connection` profile includes a subnet mask of /32 in the `remote-address` setting, host routes for the interface are not suppressed. (Pool addresses also have a 32-bit mask, so they are not suppressed.)

Usage Valid values are as follows:

- `yes`—Suppresses host routes.
- `no` (the default)—Advertises host routes.

Example `set suppress-host-routes = yes`

Location `IP-GLOBAL`

suspect-access-resource-enabled

Description Specifies whether the `suspect-access-resource` trap (notification) is enabled.

Usage Valid values are as follows:

- `yes`—Specifies that the `suspect-access-resource` trap is enabled. This is the default.
- `no`—Specifies that the `suspect-access-resource` trap is disabled.

Example `set suspect-access-resource-enabled = no`

Location `TRAP`

See Also `sys-clock-drift-enabled`

sustainable-cell-rate-cells-per-sec

Description Read-only. Indicates the sustainable cell rate (SCR), which is the average cell transmission rate allowed over a given period of time on a given circuit.

Usage The value is read-only. It is calculated from the `sustainable-rate-kbits-per-sec` setting and used in the internal ATM configuration. The valid range is from zero (0) to 2147483647.

Example `sustainable-cell-rate-cells-per-sec = 37`

Location `ATM-QOS`

sustainable-rate-kbits-per-sec

Description Read-only. Indicates the sustainable bit rate in kilobits per second.

Usage This setting applies only to variable bit rate (VBR) traffic, for which the bit rate is variable within the values specified for peak cell rate (PCR), sustainable cell rate (SCR), and maximum burst size (MBS).The default value is 16Kbps. The range is from 0 to 148598Kbps

Example `sustainable-rate-kbits-per-sec = 16`

Location `ATM-QOS`

switch-count

Description Read-only. Indicates the number of times switchover to the protection channel has occurred in an automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `switch-count = 32`

Location `APS-STAT`

switched-call-type

Description Specifies the type of bearer-channel capability the Stinger unit sets up for each switched call in a session.

Usage Valid values are as follows:

Values	Specifies
`voice`	The Stinger unit sets up a voice call, even though it will transmit data over the channel. The `voice` setting assumes that only 56Kbps is available.
`56k-restricted` (the default)	The Stinger unit sets up a data call with an explicit request for 56Kbps restricted data transfer. Data is transmitted to meet the density requirements for AMI-encoded T1 lines. These requirements dictate that you cannot transmit 16 consecutive zeroes. Use this setting only for a connection that uses robbed-bit signaling.
`56k-clear`	The Stinger unit sets up a data call that uses 56Kbps of the data channel. 56K-Clear is a common setting for T1 PRI lines.
`64k-restricted`	The Stinger unit sets up a data call with an explicit request for 64Kbps restricted data transfer. The call must be set up as a data call at a rate of 64Kbps on an AMI-encoded line. With each transmission, a binary 1 is inserted in the least significant bit position.
`64k-clear`	The Stinger unit sets up a data call that uses the full 64Kbps bandwidth of the data channel.
`144k-clear`	The Stinger unit sets up a data call that utilizes the full 144Kbps of combined 2B+D data channels.
`384k-restricted`	The Stinger unit sets up a data call that connects to Multi-Rate or GlobanD data services at 384Kbps.
`384k-clear`	The Stinger unit sets up a data call that connects to the Switched-384 data service. This AT&T data service does not require Multi-Rate or GlobanD.
`dws-384-clear`	A 384Kbps call coded as Multi-Rate, not H0.
`1536k-clear`	The Stinger unit sets up a data call that connects to the Switched-1536 data service at 1536Kbps. NFAS signaling is required for the Switched-1536 data service. (Because all 24 channels of the T1 PRI line carry user data, the D channel must be on another line.)
`1536k-restricted`	The same service as 1536K-Clear, but with a request for restricted data transfer. With each transmission, a binary 1 is inserted in the least significant bit position.

Values	Specifies
`128k-clear to 1472k-clear (in multiples of 64)`	Multi-Rate bit rates.
`modem`	The Stinger unit sets up the call as a voice call. When the call is enabled, the Stinger unit routes it to a digital modem.

To ensure data integrity:

- Use only digital end-to-end connectivity. No analog signals must be present anywhere in the link.
- Make sure that the telephone company is not using any intervening loss plans to economize on voice calls.
- Do not use echo cancellation. The technology designed to remove echoes from analog lines can scramble data in the link.
- Do not make any modifications that can change the data in the link.

Example `set switched-call-type = 56k-clear`

Dependencies Consider the following:

- If a dedicated (nailed-up) connection is in use, `switched-call-type` does not apply.
- You must set this parameter for the `userstat` command to display the correct speed setting.

Location `FRAME-RELAY`

See Also `data-service`

switched-enabled

Description *Not used*.

Location `BASE`

switch-name

Description Name set by the system to identify which ATM application-specific integrated circuit (ASIC) can be configured in the `switch-config` profile.

By default, the system always creates a `switch-config` profile with `switch-name` set to `controller`. If one or more trunk aggregation modules (TRAMs) are installed, the system also creates profiles for those modules with `switch-name` set to `tram-17` (a TRAM installed in slot 17) or `tram-18` (a TRAM installed in slot 18).

Usage Do not modify the profile index names (`controller`, `tram-17`, or `tram-18`) assigned by the system.

Example To display the profile index names:

```
admin> dir switch-config
603 08/02/2001 15:04:14 controller
1964 08/02/2001 15:08:22 tram-17
1770 08/02/2001 15:05:37 tram-18
```

Dependencies If no TRAMs are installed, only the `controller` name is valid.

Location `SWITCH-CONFIG`

sync-analog-profile

Description Specifies the `connection` profile for synchronous framing and analog bearer dialout request.

Usage Specify an alphanumeric text string of up to 31 characters. Default value is blank.

Example `set sync-analog-profile = analog_name`

Location `TUNNEL-SERVER:dialout-options`

sync-digital-profile

Description Specifies the `connection` profile for synchronous framing and digital bearer dialout request.

Usage Specify an alphanumeric text string of up to 31 characters. The default value is blank.

Example `set sync-digital-profile = digital_name`

Location `TUNNEL-SERVER:dialout-options`

sys-clock-drift-enabled

Description Specifies whether the SNMP clock-drifted trap (notification) is enabled.

Usage Valid values are as follows:

- `yes`—Specifies that the SNMP clock-drifted trap is enabled. This is the default.
- `no`—Specifies that the SNMP clock-drifted trap is disabled.

Example `set sys-clock-drift-enabled = no`

Location `TRAP`

See Also `config-change-enabled`

syslog-enabled

Description Enables or disables forwarding of log messages to the UNIX Syslog server.

Usage Valid values are as follows:

- yes—Specifies forwarding of log messages to the UNIX Syslog server is enabled.
- no—Specifies forwarding of log messages to the UNIX Syslog server is disabled. This is the default.

Example `set syslog-enabled = yes`

Dependencies Syslog is not a Stinger status display, but a facility that sends system status messages to a host computer, known as the Syslog host. (For information about the syslog daemon, see the UNIX man pages for logger(1), syslog(3), syslog.conf(5), and syslogd(8).) The Syslog function requires UDP port 514.

Location LOG

See Also facility
host

syslog-format

Description Specifies the system log message format to use.

Usage Specify one of the following values:

- tnt—Syslog message format is MAX TNT® style. This is the default value.
- max—Syslog message format is MAX™ style.

Example `set syslog-format = max`

Location LOG

syslog-level

Description Specifies the lowest level of log messages Stinger unit sends to the Syslog server.

Usage All levels above the level you indicate will be included in your Syslog messages. For example, if Alert is specified, messages at Emergency level and messages at Alert level will be included. Specify one of the following values:

Value	Lowest-level message indicates
none	The unit does not display log messages.
emergency	The unit has an error condition and is unlikely to be operating normally.
alert	The unit has an error condition but is still operating normally.
critical	An interface has gone down or a security error has occurred.
error (the default in log)	An error event has occurred.

Value	Lowest-level message indicates
`warning`	An unusual event has occurred, but the unit is otherwise operating normally. For example, this type of message appears when a login attempt has failed because the user entered an incorrect username or password.
`notice`	Events of interest in normal operation have occurred (a link going up or down, for example).
`info` (the default in `LOG:auxiliary-syslog: auxiliary-syslog` *n*)	State and status changes that are commonly not of general interest have occurred.
`debug`	Helpful debugging information.

By default, Syslog records with a level of Debug are filtered out, and records with a level of Info or above are transmitted to the Syslog server.

Example `set syslog-level = notice`

Dependencies The `syslog-level` value in the `log` profile affects all data streams. The `syslog-level` value in each `auxiliary-syslog` subprofile affects the individual data stream directed to the device specified by the `host` value, and overrides the value in the `log` profile.

Location `LOG`
`LOG:auxiliary-syslog:auxiliary-syslog[`*n*`]`

See Also `syslog-enabled`

system-8k-clock

Description Specifies the 8 kilohertz (kHz) clock source for the unit.

Usage Valid values are as follows:

- `controller`—Specifies that the clock source is the control module. This is the default..
- `trunk-module`—Specifies that the clock source is the trunk module framer.
- `bits` (building integrated timing supply)—Specifies that the clock source is the T1 framer.
- `ami-8k`—Specifies that the clock source operates in the Annex C system clock for Japan.

Example `set system-8k-clock = trunk-module`

Dependencies If the unit detects a T1 signal in the BITS input, it prioritizes the clock source list as follows:

- If the `system-8k-clock` parameter is set to bits, the priority is set to the highest (1) and the T1 framer is selected regardless of other available clock sources and priorities.

- If the `system-8k-clock` parameter is set to a value other than `bits`, the priority is set as the lowest (3), and the T1 framer is selected as a clock source only if no other clock sources are available.

Location `SYSTEM`

system-created-slave-profile

Description Indicates the `watchdog-config` profile is system-created for a Compact Remote shelf.

Usage This parameter is read-only. Valid values are as follows:

- `yes` (the default)—The `watchdog-config` profile is system-created.
- `no`—The `watchdog-config` profile is user-created.

Example `system-created-slave-profile = yes`

Location `watchdog-config`

system-ip-addr

Description Specifies the source address for IP traffic originating from the Stinger unit or from the global virtual router.

To enable the system to fail over smoothly to a redundant control module, you must set the `system-ip-addr` value to the address of the soft IP interface address. This allows the system IP address to be a single, unchanging address that always maps to the current primary control module. The soft IP interface address is always associated with the current primary control module.

The following algorithm determines the source address of packets from the Stinger unit:

1 The source address of IP-routing protocol packets is always the local address of the transmitting interface.

2 The source address of transmitted Telnet packets in `telnet` sessions to the unit is the destination address of the originating TCP SYN packet.

3 The source address of all other transmitted packets is the system IP address, if the `system-ip-addr` parameter specifies an IP address, or the local address of the transmitting interface, if `system-ip-addr` specifies the null address.

Protocols that follow this algorithm include the following:

- TCP: Defender, Rlogin, TACACS+, Telnet
- UDP: ATMP, DNS, RADIUS accounting, RADIUS authentication, SECURID, SNMP, Syslog, TFTP, Traceroute, VTP

If the `system-ip-addr` address becomes unreachable because of a topology change in the network, you can still initiate a `telnet` session to any of the unit's IP interface addresses (subject to packet filtering throughout the network).

Usage Specify an IP address. The default is 0.0.0.0. For redundant control modules, specifying the soft interface address is recommended.

Example `set system-ip-addr = 10.2.3.4`

Location IP-GLOBAL

system-password

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration

system-rmt-mgmt

Description Enables or disables remote management of the Stinger unit across multichannel calls.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that remote management of the Stinger unit across multichannel calls is enabled.
- `no`—Specifies that remote management of the Stinger unit across multichannel calls is disabled.

Example `set system-rmt-mgmt = no`

Location SYSTEM

See Also `remote-configuration`

T

t1000

Description Specifies whether code images for Stinger T1000 modules are to be stored in flash memory.

Usage Valid values are as follows:

- `auto`—Loads the code image if a T1000 module is installed. Otherwise, the image is not loaded. This is the default.
- `load`—Loads the code image when one is present in the tar file
- `skip`—Does not load the code image when one is present in the tar file

Example `set t1000 = auto`

Location LOAD-SELECT

t301-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after an alert message is sent. The timer is stopped if a Release Complete or Release message is received before a Connect message, and the call is cleared.

Usage Specify a value from1 to 180000. The default value is 180000 (three minutes).

Example `set t301-ms = 170000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t303-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after an alert message is sent. The timer is stopped when a Connect, Call Proceeding, or Release Complete message is received.

Usage Specify a value from 500 to 5000. The default value is 4000.

Example `set t303-ms = 5000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t303-num-retries

Description Specifies the number of retries for the timer set by the `t303-ms` parameter. For each retry, the timer resets and waits for a response until the combined specifications of interval and retries expire or the response is received, whichever comes first.

Usage Specify a number from 1 to 4. The default value is 1.

Example `set t303-num-retries = 3`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t306-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after a Release message is sent with progress indicator No. 8 for inband information. The timer is stopped when a Release Complete message is received.

Usage The default value is 30000.

Example `set t306-ms = 30000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t308-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after a Release message is sent. This timer is also called the *release indication timer*. The timer is started when the Release message is sent and normally is stopped when the Release or Release Complete message is received.

Usage Specify a value from 5000 to 50000. The default value is 30000.

Example `set t308-ms = 30000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t308-num-retries

Description Specifies the number of retries for the timer set by the `t308-ms` parameter. For each retry, the timer resets and waits for a response until the combined specifications of interval and retries expire or the response is received, whichever comes first

Usage Specify a number from 1 to 4. The default is 1.

Example `set t308-num replies = 3`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t309-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits to reconnect Q.SAAL. Signaling ATM adaptation layer (SAAL) resides between the atm layer and the Q.2931 function, providing reliable transport of Q.2931 messages. After the specified time has elapsed, calls are dropped.

Usage When this parameter is set to 0 (the default), a default value based an ATM signaling protocol is used. Specify a value from 0 to 200000.

Example `set t309-ms = 10000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t310-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after a Setup message is received. This timer is also called the *call proceeding timer*.

Usage Specify a value from 5000 to 50000. The default value is 10000.

Example `set t310-ms = 20000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t313-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after a Connect message is sent. This timer is also called the *connect request timer*. The timer is started when the Connect message is sent and is stopped when the Connect Acknowledge message is received.

Usage Valid values range from 1000 to 10000. The default value is 30000.

Example `set t313-ms = 10000`

Location ATM-IF-SIG-PARAMS[*n*]:q2931-options

t316-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after a Restart message is sent. This timer is also called the *restart request timer*. The timer is started when the Restart message is sent and is stopped when the Restart Acknowledge message is received.

Usage Specify a value from 10000 to 300000. The default value is 120000.

Example `set t316-ms = 110000`

Location ATM-IF-SIG-PARAMS[*n*]:q2931-options

t316-num-retries

Description Specifies the number of retries for the timer set by the `t316-ms` parameter. For each retry, the timer resets and waits for a response until the combined specifications of interval and retries expire or the response is received, whichever comes first.

Usage Specify a number from 1 to 4. The default is 1.

Example `set t316-num-retries = 3`

Location ATM-IF-SIG-PARAMS[*n*]:q2931-options

t317-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits before completing the internal clearing following receipt of a Restart message. The timer is stopped when a Restart Acknowledge message is transmitted to the originator.

Usage Specify a value from 10000 to 100000. The default value is 60000.

Example `set t317-ms = 60000`

Location ATM-IF-SIG-PARAMS[*n*]:q2931-options

t322-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response after a Status Enq message is sent.

Usage Specify a value from 1000 to 10000. The default value is 4000.

Example `set t322-ms = 6600`

Location ATM-IF-SIG-PARAMS[*n*]:q2931-options

t322-num-retries

Description Specifies the number of retries for the timer set by the `t322-ms` parameter. For each retry, the timer resets and waits for a response until the combined specifications of interval and retries expire or the response is received, whichever comes first.

Usage Specify a number from 1 to 4.

Example `set t322-num-retries= 3`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t331-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits before internally clearing call references.

Usage Valid values range from 1000 to 10000. The default is 60000.

Example `set t331-ms = 40000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t331-num-retries

Description Specifies the number of retries for the timer set by the `t331-ms` parameter. For each retry, the timer resets and waits for a response until the combined specifications of interval and retries expire or the response is received, whichever comes first.

Usage Specify a number from 1 to 4. The default is 1.

Example `set t331-num-retries = 3`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t333-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits before internally clearing call references.

Usage Specify a value from 1000 to 10000. The default is 10000.

Example `set t333-ms = 2000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

t391-val

Description Specifies the setting for the link Integrity Verification polling timer in frame relay.

Usage The value must be less than that of `t392-val`. The default is 10, which specifies that status requests are spaced 10 seconds apart. You can multiply the value by the number of polling cycles specified by `n391-val` to calculate the interval at which the user network interface data terminal equipment (UNI-DTE) device requests a full status report.

Example `set t391-val = 2`

Dependencies If `link-type` is set to `dce`, this parameter does not apply.

Location `FRAME-RELAY`

t392-val

Description Specifies the `t392-val` interval (in seconds) at which Status Enquiry messages are to be received. If the network does not receive a Status Enquiry message within the specified number of seconds, the network records an error.

Usage The default value is 15.

Example `set n392-val = 3`

Dependencies If `link-type` is set to `dte`, this parameter does not apply.

Location `FRAME-RELAY`

t397-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits before internally clearing call references.

Usage Specify a value from 60000 to 240000. The default is 180000

Example `set t397-ms = 80000`

Location `ATM-IF-SIG-PARAMS[`*n*`]:q2931-options`

t398-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response to a Drop Party message that was sent.

Usage Specify a value from 1000 to10000. The default value is 4000.

Example `set t398-ms = 6000`

Location `ATM-IF-SIG-PARAMS[`*n*`]:q2931-options`

t399-ms

Description Specifies the maximum amount of time (in milliseconds) that the Stinger unit waits for a response to an Add Party message that was sent.

Usage Specify a value from 10000 to 20000. The default is 14000.

Example `set t399-ms = 16000`

Location `ATM-IF-SIG-PARAMS[n]:q2931-options`

table-config[*n*]

Description An array of up to eight elements, each of which defines a hostname-address pair as an entry in the local Domain Name System (DNS) table. If the `auto-update` parameter is set to `yes`, the system creates table entries from successful DNS queries.

Usage For each element in the array, specify a hostname and an associated IP address. Defaults are null and `0.0.0.0`.

Example To define the first entry in the local DNS table, list the contents of `table-config 1` and then set the parameters, as follows:

```
admin> list table-config 1

[in IP-GLOBAL:dns-local-table:table-config[1]]
host-name = ""
ip-address = 0.0.0.0

admin> set host-name = boffin
admin> set ip-address = 10.0.0.1
```

Dependencies The `auto-update` parameter must be set to `yes` for the system to create table entries from successful DNS queries.

Location `IP-GLOBAL:dns-local-table`

tacp-tx-cell-count

Description Read-only. Pertains to Asynchronous Transfer Mode (ATM). Indicates the Transmit ATM Cell Processor (TACP) transmit cell count.

Usage The `tacp-tx-cell-count` value is read-only.

Example `tacp-tx-cell-count = 0`

Location `OC3-ATM-STAT`

tag

Description Specifies a link as follows:

- Within the `snmpv3-notification` profile, specifies a value that links the `snmpv3-notification` profile with the `trap` profile specifying the host address to which notification messages are sent.

- Within the `frdlci-stat` profile, specifies a numeric value associated with the data link connection identifier (DLCI) on the owning card.

Usage Valid values are as follows:

- For the `snmpv3-notification` profile, specify up to 255 characters. The default is null.
- For the `frdlci-stat` profile, a read only value between 0 and 4294967295.

Example `set tag = newtag`

Location `FRDLCI-STAT`
`SNMPV3-NOTIFICATION`

tag-or-discard

Description Enables or disables tagging of cells that do not conform to the sustainable cell rate (SCR) part of the traffic contract. Tagging means changing the cell loss priority (CLP) bit to 1. Cells not conforming to program clock reference (PCR) are discarded.

Usage Valid values are as follows:

- `tag`—Enables tagging
- `discard`—Disables tagging. This is the default.

Dependencies If you set the `traffic-descriptor-type` to `clp-tagging-scr`, `noclp-tagging-noscr`, or `clp-tagging-scr`, this parameter is set to `tag`. If you set the traffic descriptor type to any other value, `the tag-or-discard` parameter is set to `discard` (the default)

Example `set tag-or-discard = tag`

Location `ATM-QOS`

target-atm-address

Description Specifies the ATM address of the destination port on which the target switch establishes the target permanent virtual circuit (PVC) to the destination end system.

Usage The value can be a 40-digit hexadecimal number or an alias that has been defined to represent the number.

Example `target-atm-address = 00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00+`

Dependencies The `target-atm-address` parameter does not apply if the `conn-kind` value is set to `pvc`.

Location `CONNECTION:atm-connect-options`

target-noise-margin-down

Description Specifies the downstream noise margin the line must achieve relative to 0dB to initialize successfully and to rate adapt during normal operations.

Usage Specify an integer from 1 to 31 representing decibels. The default is 6dB. The line interface module (LIM) limits the maximum noise margin to 15dB. If you specify a setting greater than 15, the LIM uses 15dB.

Example `set target-noise-margin-down = 10`

Location `AL-DMT:margin-config`

See Also `target-noise-margin-up`

target-noise-margin-up

Description Specifies the upstream noise margin the line must achieve relative to 0dB to initialize successfully and to rate adapt during normal operations.

Usage Specify an integer from 1 to 31 representing decibels. The default is 6db. The line interface module (LIM) limits the maximum noise margin to 15dB. If you specify a setting greater than 15, the LIM uses 15dB.

Example `set target-noise-margin-up = 15`

Location `AL-DMT:margin-config`

See Also `target-noise-margin-down`

target-params-name

Description Specifies the value indicated by the `name` setting in the `snmpv3-target-param` profile.

Usage Specify up to 22 characters.

Example `set target-params-name = profile1`

Location `TRAP`

target-select

Description Specifies the method of assigning the virtual path identifier-virtual channel identifier (VPI-VCI) pair for the target permanent virtual channel (PVC).

Usage Valid values are as follows:

- `required`—Specifies that the target switch builds a read-only Connection profile using the VPI-VCI pair specified by the Target-VPI and Target-VCI settings, which are provided by the initiator switch during the signaling setup. This is the default.
- `any`—Specifies that the target switch provides the VPI-VCI pair to the soft PVC (SPVC), and the Target-VPI and Target-VCI settings on the SPVC initiator do not apply.

Example `set target-select = required`

Location CONNECTION

target-utilization

Description Specifies a number representing the percentage of line utilization to use as a threshold for determining when to add or subtract bandwidth.

The Stinger unit adds bandwidth when average line utilization (ALU) exceeds the `target-utilization` value, and subtracts bandwidth when it falls below that value for a specified amount of time.

Usage Specify a number from 0 to 100. The default is 70.

Example `set target-utilization = 70`

Location ANSWER-DEFAULTS:mpp-answer
CONNECTION:mp-options

See Also `seconds-history`

target-vci

Description Specifies the virtual channel identifier (VCI) for the target permanent virtual channel (PVC), when Target-Select is set to `required`.

Usage Specify a number to be assigned to the target PVC. The default value is 0 (zero)

Example `set target-vci = 0`

Location CONNECTION

See Also `target-select, target-vpi`

target-vpi

Description Specifies the virtual path identifier (VPI) for the target permanent virtual channel (PVC), when `target-select` is set to `required`.

Usage Specify a number to be assigned to the target PVC. The default value is 0 (zero)

Example `set target-vpi = 0`

Location CONNECTION

See Also `target-select, target-vci`

tcc-ms

Description Specifies the time (in milliseconds) for control protocol data units (PDUs) (BGN, END, RESYNC).

Usage Valid values range from zero (0) to 3000. The default value is 1000.

Example `set tcc-ms = 1000`

Location `ATM-IF-SIG-PARAMS[n]:qsaal-options`

See Also `tidle-ms`

tcp

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

tcp-estab

Description Enables or disables application of the filter only to packets in an established TCP session.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—Filters only packets that are part of established TCP connections.
- `no`—Filters packets that are not part of an established TCP connection.

Example `set tcp-estab = yes`

Dependencies This setting applies only if the `type` parameter in the `input-filter` or `output-filter` subprofile is set to `ip-filter` and `protocol` is set to 6 (TCP).

Location `FILTER:input-filters[n]:ip-filter`
`FILTER:output-filters[n]:ip-filter`

tcp-syn-flood-protect

Description Enables or disables a flush of old Transmission Control Protocol (TCP) sockets that are in a `Tcps_synrcvd` state, when a heavy Tcp-syn flooding occurs.

Usage Valid values are as follows:

- `yes`—Enables a flush of these sockets.
- `no`—Disables any flush of these sockets.

Example `set tcp-syn-flood-protect = yes`

Location `IP-GLOBAL`

tcp-timeout

Description Specifies an interval for TCP retry attempts. After the specified number of seconds elapses, the retries stop and the connection is considered lost.

Usage Specify a number of seconds for a TCP time-out. Valid values range from 0 seconds (the default) to 200 seconds.

- With the default value of 0 (zero), the system attempts a fixed number of retries at escalating intervals, adding up to about 170 seconds total.
- If you set `tcp-timeout` to a nonzero value, the value is the number of seconds TCP retries persist. (Other limits in the system terminate TCP retries after about 170 seconds, even if the value is set to a higher number.)

Example `set tcp-timeout = 30`

Location `IP-GLOBAL`

tdr-automatic-fault-distance

Description Read-only. Indicates the distance to the first detected fault in a copper loop test (CLT). This value is only generated for time domain reflectometry (TDR) tests in automatic mode.

Usage Read-only value reported in hundredths (0.01) of a foot for English units or centimeters for metric units.

Example `tdr-automatic-fault-distance = 100000`

Location `CLT-RESULT`

tdr-automatic-result

Description Read-only. Indicates the distance to the first detected fault in a copper loop test (CLT). This value is only generated for time domain reflectometry (TDR) tests in automatic mode.

Usage The TDR-Automatic-Result value is read-only, reported in hundredths (0.01) of a foot for English units or centimeters for metric units.

Example `tdr-automatic-result = 0`

Location `CLT-RESULT`

See Also `tdr-automatic-result`

tdr-avg

Description Specifies the number of times the time domain reflectometry (TDR) pulse is sent in a copper loop test (CLT).

Usage Range is from 1 to 5 pulses. Results are averaged if more than one pulse is used.

Example `set tdr-avg = 2`

Location CLT-COMMAND

tdr-distance-level

Description Read-only. Indicates TDR-Sample-Count pairs of time domain reflectometry (TDR) test data. The second number in each pair is the level-axis raw data.

Usage The `tdr-distance-level` is a read-only value. The first number in each pair is the distance in hundredths (0.01) of a foot for English units or in centimeters for metric units.

Example `tdr-distance-level = [ { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0 0 } { 0+`

Location CLT-RESULT

tdr-gauge

Description Specifies the gauge of the cable in the loop in a copper loop test (CLT).

Usage Valid values are as follows:

- 22, 24, or 26 AWG if English units are used.
- 4, 5, or 6 tenths of a millimeter if metric units are used.

Example `set tdr-gauge = 4`

Location CLT-COMMAND

tdr-get-type

Description Specifies the type of time domain reflectometry (TDR) test in a copper loop test (CLT).

Usage Valid values are as follows:

- `auto`—First fault is automatically detected.
- `manual`—User specifies the measurement range.

Example `set tdr-get-type = manual`

Location CLT-COMMAND

tdr-manual-sample-count

Description Read-only. Indicates the number of distance or level data points returned for a time domain reflectometry (TDR) test in a copper loop test (CLT).

Usage Read-only numeric value. If the TDR test is performed in auto mode and no faults are found, `tdr-manual-sample-count` is set to 0.

Example `tdr-manual-sample-count = 0`

Location CLT-RESULT

tdr-measurement-length

Description Specifies the total length of a measurement in manual mode starting from the start-distance in a copper loop test (CLT).

Usage Specify a number according to the units used:

If units used are	Specify
english	A number from 100 to 20,000 to designate feet. Start-distance plus measurement length must not exceed 20,000 feet.
metric	A number from 32 to 6097 to designate meters. Start-distance plus measurement length must not exceed 6097 meters.

Example `set tdr-measurement-length = 10000`

Location CLT-COMMAND

tdr-sample-count

Description Read-only. Indicates the number of distance or level data points returned for a time domain reflectometry (TDR) test in a copper loop test (CLT).

Usage If the TDR test is performed in auto mode and no faults are found, Sample-Count is set to 0.

Example `tdr-sample-count = 0`

Location CLT-RESULT

See Also `tdr-automatic-result`

tdr-start-distance

Description Specifies the distance at which to start time domain reflectometry (TDR) measurement in manual mode in a copper loop test (CLT).

Usage Specify a number according to the units used. The default is 0.

If units used are	Specify
english	A number from 15 to 20,000 to designate feet.
metric	A number from 5 to 6097 to designate meters.

Example `set tdr-start-distance = 6000`

Location CLT-COMMAND

tdr-unit

Description Specifies the units of measurement for time domain reflectometry (TDR) testing.

Usage Valid values are as follows:

- `english`—English units are used for the measurement.
- `metric`—Metric units are used for the measurement. This is the default.

Example `set tdr-unit = metric`

Location `CLT-COMMAND`

See Also `tdr-gauge`

tdr-vp

Description Specifies the velocity of propagation for the cable under test in a copper loop test (CLT).

Usage The valid range is from 40 to 99 percent of the speed of light. The default value is 0.

Example `set tdr-vp = 90`

Location `CLT-COMMAND`

See Also `tdr-gauge`

telnet

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration:telnet-options`

telnet-host-auth

Description *Not used.*

Location `TERMINAL-SERVER:immediate-mode-options`

telnet-mode

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration:telnet-options`

telnet-password

Description *Not used.*

Location `IP-GLOBAL`

temporary-route

Description Specifies that the Stinger unit adds the route to the routing table only when the link is up. Temporary-Route is especially useful for dedicated (nailed-up) IP-routing connections.

Usage Valid values are as follows:

- `yes`—Specifies that a route from the routing table is excluded when its connection is down.
- `no`—Specifies that a route from the routing table is included even if its connection is down. This is the default.

Example `set temporary-route = no`

Location `CONNECTION:ip-options`

terminal-type

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

term-rate

Description Specifies the bit rate of a Stinger serial port. When you modify the bit rate of a serial port, you might also need to change the data-rate setting of the terminal accessing that port.

Usage Specify one of the following values:

57600
38400
19200
9600 (the default)
4800
2400

Example `set term-rate = 19200`

Location `SERIAL`

test-iteration-interval

Description Specifies the time period in minutes between two tests.

Usage Specify a value from 0 through 10000. The default is 30.

Example `set test-iteration-interval = 60`

Location `ATM-OAM:loopback-config`

test-operation

Description Specifies the type of copper loop test (CLT).

Usage Select one of the following values.

- `dmm-test`—Starts digital multimeter (DMM) tests.
- `line-inls-test`—Starts an insertion loss test.
- `line-bgns-test`—Starts a background noise test.
- `line-signs-test`—Starts a signal-to-noise test.
- `line-lpres-test`—Starts a loop resistance test.
- `line-cldet-test`—Starts a load coil detection test.
- `line-impstart-test`—Starts an impulse noise test.
- `line-impread-test`—Reads the current result of an impulse noise test.
- `line-impstop-test`—Stops an impulse noise test.
- `calib-test`—Calibrates the internal test head.
- `tonesnd-test`—Sends a test tone down the loop.
- `tonercv-test`—Measures the amplitude and frequency of the tone.
- `tdrset-test`—Sets TDR parameters.
- `tdr-get`—Runs a TDR test.
- `cltm-reset-test`—Resets test head electronics.
- `cltm-version`—Reports version numbers of hardware and software.
- `cltm-download`—Downloads CLT module code.
- `dmm-dcdel-test`—Starts DMM dc delta test.
- `dmm-cape-test`—Starts DMM equivalent capacitance test.
- `dmm-all-test`—Starts DMM ALL test.
- `tx-ctrl-tone-test`—Sends a control tone.
- `tx-trace-tone-test`—Sends a trace tone.
- `stop-tone-test`—Stops sending tones.
- `det-ringer-test`—Starts a detect ringer test.
- `det-atur-test`—Starts an ATU-R detection test. ADSL LIMs only.
- `btap-test`—Starts a bridge tap detection test.
- `voice-det-test`—Starts a voice signal detection test.
- `line-fclloc-test`—Starts a first load coil detection test.
- `line-shortloc-test`—Starts a short-circuit location test.
- `set-responder-test`—Places CLT module in or out of responder mode.
- `set-bypass-test`—Toggles splitter bypass.
- `splitter-detect-test`—Tests for the presence of a splitter.
- `dmm-acdel-test`—DMM ac delta test.
- `dmm-lbal-test`—Longintudinal balance test.
- `dmm-soak-test`—Soak measurement. *Not supported*.
- `send-voice-test`—Send voice signal.

- meas-voice-test—Voice signal detection.
- meas-dta-test—Analyze subscriber dial tone.
- detaptor-test—Detaptor test.

Example `set test-operation = line-bgns-test`

Location CLT-COMMAND

See Also test-result-status

test-result-sequence

Description Read-only. Indicates the sequence of the last test result.

Usage Read-only number value with a range of 0 to 4294967295.

Example `test-result-sequence = 9`

Location CLT-RESULT

test-result-status

Description Read-only. Indicates the status of a copper loop test.

Usage Valid values are as follows:

- not-valid—Test has not been performed or is in progress.
- valid —Test is complete and the results are viable in the profile.
- out-of-range—Test failed because of measurements or parameters that were out of range.

Example `test-result-status = valid`

Location CLT-RESULT

test-result-time-stamp

Description Read-only. Indicates the number of hours, minutes, and seconds that the system was operational (system uptime) when a test result was obtained.

Usage Read-only value with a range of 0 to 4294967295.

Example `test-result-time-stamp = 12324`

Location CLT-RESULT

test-sequence

Description Read-only. Indicates the sequence of the last issued test command.

Usage Read-only number value with a range of 0 to 4294967295.

Example `test-sequence = 9`

Location CLT-COMMAND

test-terminal

Description Specifies which copper loop test (CLT) module or path selector module (PSM) terminal to connect the test tone to.

Usage Valid values are as follows:

- external-tester-terminal (the default)
- aux-tester-terminal

Example **set test-terminal = aux-tester-terminal**

Dependencies This parameter is only relevant to the tone-gen test.

Location LINE-TESTS

test-time-stamp

Description Read-only. Indicates the number of hours, minutes, and seconds that the system was operational (system uptime) when the last test command was issued.

Usage Read-only value with a range of 0 to 4294967295.

Example test-time-stamp = 12324

Location CLT-COMMAND

test-type

Description Defines the type of line test to be performed.

Usage Valid values are as follows:

- gal-iso—Specifies the galvanic isolation test. This is the default.
- tone-gen—Specifies the multiport tone generation test.

Example **set test-type = tone-gen**

Location LINE-TESTS

text-n

Description *Not used.*

Location TERMINAL-SERVER:menu-mode-options

time-elapsed

Description Read-only. Reports the number of seconds since the start of the current performance measurement interval of the SNMP `sonetMediumTimeElapsed` field.

Usage Read the `oc3-atm-stat` profile to display the current value for the field.

Example `time-elapsed = 8`

Location `OC3-ATM-STAT`

third-login-prompt

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

third-party

Description Enables or disables Open Shortest Path First (OSPF) third-party routing for a static route.

Usage Valid values are as follows:

- `yes`—Enables third-party routing for the OSPF router. When `third-party` is set to `yes`, the `gateway-address` value is the third-party router for the route.
- `no` (the default)—Disables third-party routing for the OSPF router.

Example `set third-party = yes`

Location `IP-ROUTE`

third-prompt-sequence

Description *Not used.*

Location `TERMINAL-SERVER:terminal-mode-configuration`

thresh-profile

Description *Not used.* Specifies the name of a DSL-Threshold profile.

Usage Specify a name of up to 22 characters. A DSL-Threshold profile is not tied to a particular line, but is linked instead by the `thresh-profile` parameter of an AL-DMT profile for that line. During startup, the system creates a default DSL-Threshold profile named `default` and also sets the `thresh-profile` parameter in each AL-DMT profile to `default`, creating the link between the two profiles.

Example `set thresh-profile = dsl-thrprof1`

Location `AL-DMT`
`HDSL2`

throttle-no-port-match-udp-traffic-on-slot

Description Enables or disables reception of UDP packets for UDP ports currently unknown to the Stinger unit. The system discards UDP packets until it receives packets for which the UDP port is known.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—Disable reception of UDP packets for UDP ports unknown to the Stinger unit.
- `no`—Enables reception of UDP packets for UDP ports unknown to the Stinger unit. This is the default.

Example `set throttle-no-port-match-udp-traffic-on-slot = no`

Location `IP-GLOBAL`

tidle-ms

Description Pertains to the signaling ATM adaptation layer (SAAL) of Asynchronous Transfer Mode (ATM). Specifies the interval (in milliseconds) during which the Q.SAAL layer is idle, for UNI 3.1 only.

Usage Valid values range from 1000 to 20000. The default value is 15000.

Example `set tidle-ms = 15000`

Location `ATM-IF-SIG-PARAMS[`*n*`]:qsaal-options`

See Also `tcc-ms`

time-stamp

Description Read-only. Indicates the time at which the local node recognized connectivity from the advertising node to the reachable address prefix.

Usage The `time-stamp` setting is read-only.

Example `time-stamp = 0`

Location `PNNI-ROUTE-ADDR`

tkeepalive-ms

Description Pertains to the signaling ATM adaptation layer (SAAL) of Asynchronous Transfer Mode (ATM). Specifies the poll interval (in milliseconds) when the Q.SAAL layer is active in a transient state.

Usage When the `tkeepalive-ms` parameter is set to 0 (the default), a default value based on an ATM signaling protocol is used. Valid values range from 0 to 3000.

Example `set tkeepalive-ms = 0`

Location `ATM-IF-SIG-PARAMS[`*n*`]:qsaal-options`

See Also tpoll-ms

tnoresponse-ms

Description Specifies the maximum interval (in milliseconds) between receipt of STAT protocol data units (PDUs).

Usage When the tnoresponse-ms parameter is set to 0 (the default), a default value based an Asynchronous Transfer Mode (ATM) signaling protocol is used. Valid values range from 0 to 20000.

Example **set tnoresponse-ms = 0**

Location ATM-IF-SIG-PARAMS[*n*]:qsaal-options

See Also tpoll-ms

tns-advertised-port-id

Description Specifies the port ID on the advertising node of the interface used to reach the transit network.

Usage Specify a number to assign to the transit network selection (TNS) port ID. The default value is 0.

Example **set tns-advertised-port-id = 3**

Location PNNI-ROUTE-TNS

tns-advertising-node-id

Description Specifies the Private Network-to-Network Interface (PNNI) node ID of a node that advertises this route.

Usage You can enter the full 22-byte ID or an alias.

Example **set tns-advertising-node-id = 00:00:00:00:00:00:00:00:00:00:00:00+**

Location PNNI-ROUTE-TNS

tns-if-index

Description Specifies the local interface over which a transit network can be reached.

Usage Specify a number to assign to the index. The zero value specifies an unknown interface or reachability through a remote node. This is the default value.

Example **set tns-if-index = 0**

Dependencies A nonzero value is allowed only if the value of the Tns-Proto parameter is not pnni, and the node identified by Tns-Advertising-Node-Id is instantiated within this non-PNNI switching system.

Location PNNI-ROUTE-TNS

tns-metrics-tag

Description Specifies a tag representing a group of metric settings that apply to the connectivity from an advertising node to a reachable transit network.

Usage The tag must be defined in one or more PNNI-Metrics profiles. If no traffic parameters apply, the zero value is used. This is the default value.

Example `set tns-metrics-tag = 0`

Location PNNI-ROUTE-TNS

tns-originate-advertisement

Description Specifies whether or not the transit network is advertised by the local node into its Private Network-to-Network Interface (PNNI) routing domain.

Usage Valid values are as follows:

- `false`—The local node does not adverstise reachability of the transit network.
- `true`—The local node advertises reachability of the transit network. This is the default.

Example `set tns-originate-advertisement = false`

Location PNNI-ROUTE-TNS

tns-pnni-scope

Description Specifies the extent of the advertisement of reachability from the advertising node to the transit network. *Scope* means the routing range of a connection.

Usage Specify a value from 0 to 104. The default value is 0.

Example `set tns-pnni-scope = 0`

Location PNNI-ROUTE-TNS

tns-proto

Description *Not used.* Specifies the mechanism by which the advertising node learned of reachability to the transit network.

Usage Valid values are as follows:

- `other`— Unspecified
- `local`—A local routing protocol such as Integrated Local Management Interface (ILMI).
- `mgmt`—A management protocol such as Simple Network Management Protocol (SNMP).

- `pnni`—ATM Forum Private Network-to-Network Interface (PNNI) dynamic routing protocol.

Example `set tns-proto = other`

Location `PNNI-ROUTE-TNS`

tns-route-type

Description Specifies the type of connectivity from the advertising node to the transit network.

Usage Valid values are as follows:

- `other` —Unspecified
- `reject`— A route that discards traffic
- `internal`— Directly attached to the logical node advertising the address
- `exterior`—Reachable through the PNNI routing domain, but which is not located in the PNNI routing domain). This is the default.

Example `set tns-route-type = internal`

Location `PNNI-ROUTE-TNS`

tns-vp-capability

Description Read-only. Indicates whether virtual path connections (VPCs) can be established from the advertising node to the reachable transit network. Pertains to Private Network-to-Network Interface (PNNI).

Usage Valid values are as follows:

- `true`—VPCs can be established from the advertsing node.
- `false`—VPCs can not be established from the advertsing node. This is the default value.

Example `tns-vp-capability = no`

Location `PNNI-ROUTE-TNS`

toggle-screen

Description *Not used.*

Location `TERMINAL-SERVER:menu-mode-options`

tone-send-freq

Description Specifies the frequency of a sent tone in a copper loop test.

Usage The valid range is from 10kHz to 1600kHz. The default is 0.

Example `set tone-send-freq = 20`

Location CLT-COMMAND

tone-send-level

Description Specifies the amplitude of a sent tone in a copper loop test.

Usage The valid range is from -10dBm to 10dBm. The default is 0.

Example `set tone-send-level = 1`

Location CLT-COMMAND

tone-send-period

Description Specifies the amount of time a tone is sent in a copper loop test.

Usage The valid range is from 0 to 20 minutes. The default is 0.

Example `set tone-send-period = 1`

Location CLT-COMMAND

top-high-temperature-threshold

Description *Not supported.* Specifies the top control module (CM) thermal sensor high temperature trigger level, in degrees Celsius (C). When the temperature exceeds this value, an alarm or watchdog state can be generated.

Usage Specify a numeric value between -20 degrees C and 75 degrees C (-4 degrees F and 167 degrees F). The default is 60 degrees C (140 degrees F).

Example `set top-high-temperature-threshold = 65`

Dependencies *Not supported.* This threshold can be used for setting an `alarm` profile and `watchdog-config` profile trap (notification). Temperature sensors are available only in version 3 and higher of the control module.

Location THERMAL

top-low-temperature-threshold

Description *Not supported.* Specifies the top control module (CM) thermal sensor low temperature trigger level (in degrees Celsius). When temperature falls below this value, an alarm or watchdog state can be generated.

Usage Specify a numeric value between -20 degrees C and 75 degrees C (-4 degrees F and 167 degrees F). A value of 0 degrees C (32 degrees F) is the default.

Example `set top-low-temperature-threshold = 15`

Dependencies This threshold can be used for setting an alarm profile and `watchdog-config` profile trap (notification). Temperature sensors are available only in version 3 and higher of the control module.

Location THERMAL

top-status

Description Specifies the default content of the upper-right portion of the status window.

Usage Valid values are as follows:

- general-info —Specifies that the Stinger unit displays general information and statistics for the system. This is the default.
- log-window—Specifies that the Stinger unit displays saved system-event log entries.
- line-status—Specifies that the Stinger unit displays the status of system telephony interfaces.

Example **set top-status = general-info**

Location USER

tos-filter

Description Specifies the name of a filter profile defining a type-of-service (TOS) filter. TOS filters are used to enable proxy-quality-of-service (QoS) handling for packets that match the filter specification.

Usage Specify the filter name. The default is null, which indicates no filter.

Example **set tos-filter = proxy-qos**

Location CONNECTION:ip-options

total-count

Description Read-only. Indicates the total number of a particular class of devices present in the system.

Usage The total-count setting is read-only.

Example total-count = 10

Location DEVICE-SUMMARY

total-loopback-tests

Description Specifies the total number of tests to be performed on this interface.

Usage Specify a value from 0 through 10000. The default is 1. A value of 0 (zero) specifies continuous testing. If you specify 0, the statistics indicated by the testCompleted MIB variable are always 0.

Example **set total-loopback-tests = 10**

Location ATM-OAM:loopback-config

tpoll-ms

Description Specifies the poll interval (in milliseconds) when the Q.SAAL layer is active.

Usage When the tpoll parameter is set to 0 (the default), a default value based on an Asynchronous Transfer Mode (ATM) signaling protocol is used. Valid values range from 0 to 3000.

Example **set tpoll-ms = 0**

Location ATM-IF-SIG-PARAMS[*n*]:qsaal-options

See Also tkeepalive-ms, tnoresponse-ms

tpp-state

Description Enables or disables the test pattern procedure.

Usage Valid values are as follows:

- disabled— Test pattern procedure is currently disabled on this link. This is the default.
- operating— Test pattern procedure is currently operating on this link

Example **set tpp-state = disabled**

Location IMAGROUP

See Also tpp-test-link, tpp-test-pattern

tpp-test-link

Description Specifies a Simple Network Management Protocol (SNMP) interface as the test link for use in the test pattern procedure.

Usage The valid range is from -1 to 24. The default is zero.

Example **set tpp-test-link = -1**

Location IMAGROUP
IMA-GROUP-STAT
IMA-GROUP-STAT:ima-rt

See Also tpp-state, tpp-test-pattern

tpp-test-pattern

Description Indicates a number that specifies the test pattern transmitted in the IMA control protocol (ICP) cell (octet 17) on the link during the inverse multiplexing over ATM (IMA) test pattern procedure.

Usage The valid range is from -1 to 255. The default is -1.

Example `set tpp-test-pattern = -1`

Location IMAGROUP
IMA-GROUP-STAT
IMA-GROUP-STAT:ima-rt

See Also Tpp-state, tpp-test-link

tpp-test-status

Description Read-only. Indicates the current state of the test pattern procedure.

Usage This read-only parameter has the following possible values:

- disabled—Test pattern procedure is currently disabled on this link
- operating—Test pattern procedure is currently operating on this link
- link-fail—Test pattern procedure has failed on this link

Example tpp-test-status = disabled

Location IMA-GROUP-STAT

See Also tpp-state, tpp-test-link

traceroute

Description *Not used.*

Location TERMINAL-SERVER:terminal-mode-configuration

traffic-descr-index

Description *Not currently used.* Specifies an index to the atmTrafficDescrParamTable defined in RFC 1695. This traffic descriptor is used when establishing switched virtual channels for use as SVCC-based RCCs to or from PNNI logical group nodes.

Location ATM-QOS

traffic-descriptor-index

Description Read-only. Indicates the traffic descriptor index.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example traffic-descriptor-index = 1234

Location ATM-QOS

traffic-descriptor-type

Description Specifies the Asynchronous Transfer Mode (ATM) traffic descriptor type as defined in RFC 2514, *Definitions of Textual Conventions and OBJECT-IDENTITIES for ATM Management.*

Usage Valid values are as follows:

- `unknown-traffic-descr`—*Currently not used.*
- `noclp-noscr` (the default)—With no cell loss priority (CLP) and no sustainable cell rate (SCR).
- `noclp-scr`—With no CLP, but with SCR.
- `clp-notagging-scr`—With CLP, no tagging, and with SCR.
- `clp-tagging-scr`—With CLP, tagging, and SCR.
- `clp-transparent-noscr`—With CLP transparent and no SCR.
- `clp-transparent-scr`—With CLP transparent and with SCR.
- `noclp-tagging-noscr`—With no CLP, tagging and no SCR.
- `noclp-noscr-cdvt`—With no CLP, no SCR, and with cell delay variation tolerance (CDVT) defined.
- `noclp-scr-cdvt`—With No CLP, with SCR and CDVT defined.
- `clp-notagging-scr-cdvt`—With CLP, with no tagging, with SCR and CDVT defined.
- `clp-tagging-scr-cdvt`—With CLP and tagging and with SCR and CDVT defined.

Dependencies If you set `traffic-descriptor-type` to `clp-tagging-scr`, `noclp-tagging-noscr`, or `clp-tagging-scr-cdvt`, the SNMP `tag-or-discard` field is set to `tag`. Setting `traffic-descriptor-type` to all other traffic descriptor types sets the SNMP `tag-or-discard` field to `discard` (the default). Following are the allowable combinations of ATM service category and traffic descriptor type:

ATM service categories	Settings for `traffic-descriptor-type`

Variable bit rate (VBR)-real time
Variable bit rate (VBR)-nonreal time
	`noclp-scr`
	`clp-notagging-scr`
	`clp-tagging-scr`
	`clp-transparent-scr`
	`noclp-scr-cdvt`
	`clp-notagging-scr-cdvt`
	`clp-tagging-scr-cdvt`

Constant bit rate (CBR)	`noclp-noscr`
	`clp-transparent-noscr`
	`noclp-noscr-cdvt`

Unspecified bit rate (UBR)	`noclp-noscr`
	`noclp-tagging-noscr`
	`noclp-noscr-cdvt`

Location `ATM-QOS`

See Also `tag-or-discard`

transit-delay

Description Specifies the estimated number of seconds it takes to transmit a link state update (LSU) packet over the interface. Before transmission, link state advertisements (LSAs) contained in the LSU packet have their ages incremented by the amount you specify.

Usage Specify a number greater than 0 (zero). The value you specify must take into account transmission and propagation delays. The default is 1.

Example `set transit-delay = 5`

`IP-INTERFACE`
`CONNECTION:ip-options:ospf-options`

transit-number

Description *Not used.* Specifies an Interexchange Carrier (IEC) for long-distance ISDN Primary Rate Interface (PRI) calls.

Location `CONNECTION:telco-options`

transmit-power

Description Read-only. Indicates the current transmission power the transceiver is using, reported in decibels under one milliwat (dBm).

Usage The `transmit-power` value is read-only.

Example `transmit-power = 10`

Location `HDSL2-STAT:physical-statistic`
`SHDSL-STAT:physical-statistic`

transmit-sdu-size

Description Specifies the size of the transmit service data unit (SDU) in octets.

Usage Specify a value between 1 and 2000 octets. The default value is 1 (one).

Example `set transmit-sdu-size = 128`

Location `CONNECTION:atm-aal-options`

transmitted-rs-blocks

Description Read-only. Indicates the number of transmitted Reed-Solomon blocks. Indicates the number of transmitted ADSL superframes (blocks) for Centillium-based line-interface modules (LIMs) and Stinger MRT units.

Usage The `transmitted-rs-blocks` value is read-only.

Example `transmitted-rs-blocks = 416772`

Location AL-DMT-STAT:physical-statistic

See Also received-rs-blocks
incoming-cells

transparentpvc

Description Read-only. Indicates whether a permanent virtual circuit (PVC) is point-to-point and transparent.

Usage Read-only parameter with the following possible values:

- yes—PVC is point to point and transparent.
- no—PVC is not point to point and transparent.

Example transparentpvc = yes

Location FRPVC-STAT

trap-optimization-enabled

Description The trap-optimization-enabled parameter optimizes the number of traps generated for slot status change.

Usage Valid values are as follows:

- yes—The system optimizes the number of traps generated for slot status change.
- no (the default)—The system generates all traps.

Example **set trap-optimization-enabled = yes**

Location TRAP

trap-sequencing

Description Enables/disables the Stinger unit from embedding sequence numbers in traps. NavisAccess® management software uses the trap sequence numbers to detect lost traps. By default, the Stinger unit does not embed sequence numbers in traps. Specify yes to enable this feature. For trap sequencing to work, the notification log must also be enabled (that is, the notification-log-enable parameter must be set to yes).

Usage Valid values are as follows:

- yes—Enables sequencing.
- no (the default)—Disables sequencing.

Example **set trap-sequencing = yes**

Location TRAP

tree-oid-mask

Description Specifies a mask in hexadecimal format for comparing subidentifiers in an object identifier (OID).

Usage Specify a mask in hexadecimal of up to 16 bytes. Comparison of subidentifiers can be omitted by specifying 0 (zero). The default is ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff.

Example `set tree-oid-mask = ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff`

Location `VACM-VIEW-TREE`

See Also `tree-type`

tree-type

Description Specifies whether an object identifier (OID) is made accessible or not.

Usage Valid values are as follows:

- `included`—Specifies that the OID is accessible. This is the default.
- `excluded`—Specifies that the OID is not accessible.

Example `set tree-type = excluded`

Location `VACM-VIEW-TREE`

See Also `tree-oid-mask`
`tree-view-properties`

trellis-encoding

Description Enables or disables trellis encoding, which is a method of forward error correction.

The use of trellis encoding is specified in the discrete multitone (DMT) standard. Disabling it can increase performance, at the cost of becoming noncompliant with the standard.

Usage Valid values are as follows:

- `yes`—Enables trellis encoding. This is the default.
- `no`—Disables trellis encoding.

Example `set trellis-encoding = yes`

Location `AL-DMT:line-config`

trunk-daughter-type

Description Read-only. Indicates the type of trunk daughter module present in a Stinger unit.

Usage Valid values for the read-only parameter are as follows:

- trunk-daughter-none
- trunk-daughter-oc3-quad
- trunk-daughter-ds3
- trunk-daughter-oc3-ds3-combo
- trunk-daughter-oc3-single
- trunk-daughter-ds3-single
- trunk-daughter-e3
- trunk-daughter-e3-single
- trunk-daughter-2oc3-4ds3
- trunk-daughter-2stm1-4e3
- trunk-daughter-oc3-ver2
- trunk-daughter-ima-8t1
- trunk-daughter-ima-8e1
- trunk-daughter-16oc3
- trunk_daughter_types

Example `trunk-daughter-type = trunk-daughter-ds3`

Location TRUNK-DAUGHTER-DEV

trunk-group

Description *Not currently used.* Specifies a trunk-group number.

Location AL-DMT:line-config
CALL-ROUTE
DS3-ATM:line-config
E3-ATM:line-config
HDSL2:line-config
OC3-ATM:line-config
SDSL:line-config
SHDSL:line-config

trunklinkindex

Description Read-only. Indicates the data link connection identifier (DLCI) member index for a trunk link.

Usage Read-only parameter with a range of 0 to 65535.

Example `trunklinkindex = 8`

Location FRPVC-STAT

ts-idle-mode

Description *Not supported.* Specifies the number of seconds a terminal-server session can remain idle before being terminated.

Location ANSWER-DEFAULTS:session-info
CONNECTION:session-options

See Also session-info, session-options

ts-idle-timer

Description *Not supported.* Specifies when to reset the terminal-server idle-session timer.

Location ANSWER-DEFAULTS:session-info
CONNECTION:session-options

See Also session-info, session-options

ttone-lead

Description Specifies the measurement leads for the copper loop test (CLT) module trace tone test.

Usage Specify one of the following values:

- tip-ring—Uses tip and ring measurement leads. This is the default value.
- tip-sleeve—Uses tip and sleeve measurement leads.
- ring-sleeve—Uses ring and sleeve measurement leads.

Example `set ttone-lead = ring-sleeve`

Location CLT-COMMAND

ttone-level

Description Specifies the trace tone send level for the copper loop test (CLT) module trace tone test.

Usage Specify the level in dBm in a range from -10dBm to 10dBm. The default value is 0.

Example `set ttone-level = 2`

Location CLT-COMMAND

ttone-period

Description Specifies the trace tone period for the copper loop test (CLT) module trace tone test.

Usage Specify the period in minutes over a range of 1 to 120 minutes. The default is 60 minutes.

Example `set ttone-period = 30`

Location `CLT-COMMAND`

tunnel-accounting

Description Enables or disables RFC 2867 RADIUS tunnel accounting.

Usage Specify one of the following values:

- `no`—Disables RFC2867 RADIUS tunnel accounting. This is the default.
- yes—Enables RFC2867 RADIUS tunnel accounting.

Example `set tunnel-accounting = yes`

Location `EXTERNAL-AUTH:rad-acct-client`

tunneling-protocol

Description Specifies a protocol to establish a tunnel for this connection.

Usage Specify one of the following values:

- `disabled`—Does not use tunneling for this connection.
- `l2tp-protocol`— Uses Layer 2 Tunneling Protocol (L2TP).
- `atmp-protocol` (the default)— Uses Ascend Tunnel Management Protocol (ATMP).

Example `set tunneling-protocol = l2tp-protocol`

Location `CONNECTION:tunnel-options`

tunnel-server-pre-sccrq-lookup

Description Enables or disables a lookup for a `tunnel-server` profile when a password is not available for a tunnel request.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—If the tunnel password is not available, the system looks for a matching `tunnel-server` profile before the Layer 2 Tunneling Protocol (L2TP) access concentrator (LAC) sends a Start Control Connection Request (SCCRQ) packet.
- `no`—The system looks for a matching `tunnel-server` profile after the system receives a L2TP Start-Control-Connection-Reply (SCCRP) packet from the L2TP network server (LNS).

Example `set tunnel-server-pre-sccrq-lookup = yes`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

tx-avail-cellrate

Description Read-only. Indicates the current cell rate (truncated value in cells per second) provided by this inverse multiplexing over ATM (IMA) group in the transmit direction, considering all the transmit links in the active state.

Usage The valid range for this read-only value is from 0 through 2147483647.

Example `rx-avail-cellrate = 7188`

Location `IMA-GROUP-STAT`

tx-cell-payload-scramble-disabled

Description In transmitted cells, enables or disables scrambling of the 48-byte Asynchronous Transfer Mode (ATM) payload.

Usage Valid values are as follows:

- `yes`—Disables scrambling of the 48-byte ATM payload in transmitted cells.
- `no`—Enables scrambling of the 48-byte ATM payload in transmitted cells. This is the default.

Example `set tx-cell-payload-scramble-disabled = yes`

Dependencies Do not set `tx-cell-payload-scramble-disabled` to `yes` unless the receiving switch has disabled the corresponding descramble function.

Location `OC3-ATM:line-config`

See Also `rx-cell-payload-descramble-disabled`
`tx-scramble-disabled`

tx-k1-byte-value

Description Read-only. Indicates the current value of the K1 byte transmitted on the protection channel in an automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `tx-k1-byte-value = 0`

Location `APS-STAT`

tx-k2-byte-value

Description Read-only. Indicates the current value of the K2 byte transmitted on the protection channel in an automatic protection switching (APS) system.

Usage The valid range for this read-only parameter is from 0 through 255.

Example `tx-k2-byte-value = 0`

Location `APS-STAT`

tx-lid

Description Specifies a number that identifies the transmit link. This parameter is read-only.

Usage The number can be from 0 through 31. The default is 0.

Example `tx-lid = 0`

Location `DS1-ATM-STAT:ima-link-status`

See Also `near-end-tx-link-state, rx-lid, valid-intervals`

tx-min-num-links

Description Specifies the minimum number of active transmission (Tx) links required for an inverse multiplexing over ATM (IMA) group to remain in operational state.

Usage Specify a number from 1 to 8. The default is 1.

Example `set tx-min-num-links = 1`

Location `IMAGROUP`

tx-num-active-links

Description Read-only. Indicates the number of links which are configured to transmit and are currently active in this inverse multiplexing over ATM (IMA) group.

Usage The valid range for this read-only value is from zero (0) to 24.

Example `tx-num-active-links = 2`

Location `IMA-GROUP-STAT`

tx-num-config-links

Description Read-only. Indicates the number of links that are configured to transmit in this inverse multiplexing over ATM (IMA) group. This parameter overwrites the value of the `imaGroupNumRxActLinks` attribute when the IMA group is configured in the Symmetrical Configuration group symmetry mode.

Usage The valid range for this read-only parameter is from zero (0) to 24.

Example `tx-num-config-links = 2`

Location `IMA-GROUP-STAT`

tx-oam-label-value

Description Read-only. Indicates the IMA operations and maintenance (OAM) label value transmitted by the near end (NE) inverse multiplexing over ATM (IMA) unit.

Usage Valid values for this read-only parameter are from one (1) to 255.

Example `tx-oam-label-value = 3`

Location `IMA-GROUP-STAT`

tx-scramble-disabled

Description Enables or disables scrambling of the entire Asynchronous Transfer Mode (ATM) transmit stream.

Usage Valid values are as follows:

- `yes`—Specifies that scrambling of the entire ATM transmit stream is disabled.
- `no` (the default)—Specifies that scrambling of the entire ATM transmit stream is enabled.

Example `set tx-scramble-disabled = yes`

Dependencies Set `tx-scramble-disabled` to `yes` only if the receiving switch has disabled the corresponding descramble function.

Location `OC3-ATM:line-config`

tx-sdu-size

Description The maximum ATM adaptation layer 5 (AAL5), common part convergence layer (CPCS), service data unit (SDU) size that is supported in the transmit direction of this virtual channel connection (VCC).

Usage Specify the number of octets in a range for 0 to 65535. The default value is 0.

Example `set tx-sdu-size = 32`

Location `ATM-VCL-CONFIG`

tx-stuffs-counter

Description Read-only. Indicates the count of stuff events inserted in the transmit direction.

Usage The valid range for this read-only parameter is from 0 through 2147483647

Example `tx-stuffs-counter = 0`

Location `DS1-ATM-STAT:ima-link-statistic`

tx-timing-ref-link

Description Read-only. Indicates the index of the transmit timing reference link to be used by the near-end for inverse multiplexing over ATM (IMA) data cell clock recovery from the Asynchronous Transfer Mode (ATM) layer.

Usage Valid values for this read-only parameter are from 0 through 24. The distinguished value of zero is used if no link has been configured in the IMA group, or if the transmit timing reference link has not yet been selected.

Example `tx-timing-ref-link = 1`

Location `IMA-GROUP-STAT`

tx-traffic-desc

Description Specifies the ATM traffic descriptor index applied to the transmit direction of the virtual channel link (VCL).

Usage Specify a numeric value in the range 0 to 4294967295. The default value is 1.

Example `set tx-traffic-desc = 100`

Location `ATM-VCL-CONFIG`
`ATM-VPL-CONFIG`

type

Description Specifies or indicates, according to the profile, the following information:

- In the `error` profile, `type` indicates the type of error that has occurred.
- In `filter:input-filters` or `filter:output-filters` profiles specifies the type of filter. The type determines which filter specification is used. The system applies only the settings in the corresponding subprofile of the filter specification
- In the `pnni-route-addr` profile, `type` specifies the type of Private Network-to-Network Interface (PNNI) connectivity from the advertising node to the address prefix.
- In the `pnni-summary-addr:addr-index` profile, `type` specifies the type of summary being described.
- In the `snmpv3-notification` profile, `type` indicates the type of notification to be generated. *This field is for future use. The agent does not generate INFORM protocol data units (PDUs).*

Usage Valid values are as follows:

- For the `error` profile, this read only parameter has a range of 0 to 4294967295.
- For the `filter:input-filters` or `filter:output-filters` profiles specify one of the following filter types:
  - `generic-filter` (the default)—Generic filters can match any packet, regardless of its protocol type or header fields. The filter specifications operate

together to define a location in a packet and a hexadecimal value to compare to it.

  - `ip-filter`—IP filters affect only IP and related packets. They make use of high-level information in packets (for example, protocol numbers, logical addresses, and TCP or UDP ports).
  - `route-filter`—Route filters are applied to RIP update packets to exclude routes from the local system's routing table, or to include routes in the table only after modifying their metrics.
  - `tos-filter`—Type of service (TOS) filters are used to enable proxy-quality-of-service (QoS) handling for packets that match the filter specification. For TOS filters, the forwarding action in the filter has no effect.

- For `pnni-route-addr` profile, specify one of the following PNNI connectivity type values:
  - `other`
  - `internal`—Directly attached to the logical node advertising the address.
  - `exterior`—Reachable through the PNNI routing domain, but not located in the PNNI routing domain. This is the default.
  - `reject`—If the address prefix is matched, the unit discards the message as unreachable. This type of connectivity is used by some protocols to aggregate routes.
- For the `pnni-summary-addr:addr-index` profile, specify one of the following values:
  - `internal-summary` (the default).
  - `external-summary`
- For the `snmpv3-notification` profile this read-only parameter has the following values:
  - `trap`—Unconfirmed notification
  - `inform`—Confirmed notification

Example `set type = exterior`

Location `ERROR`
`FILTER:input-filters[`*n*`]`
`FILTER:output-filters[`*n*`]`
`PNNI-ROUTE-ADDR`
`PNNI-SUMMARY-ADDR:Addr-Index`
`SNMPV3-NOTIFICATION`

type-of-service

Description Specifies the type of service of the data stream. In the type of service (TOS) byte of a packet, the 4 bits following the priority bits (specified in the `precedence` setting) are used to choose a link according to the type of service.

Usage According to the profile, as follows:

- When TOS is enabled in a `connection` profile, you can set the type of service to one of the following values for the WAN connection.

- In a `filter` profile, specifying a `type-of-service` value causes the system to use that value for packets that match the filter.

When TOS is enabled, specify one of the following values:

- `normal` (the default)—Establish normal service.
- `cost`—Minimize monetary cost.
- `reliability`—Maximize reliability.
- `throughput`—Maximize throughput.
- `latency`—Minimize delay.

Example `set type-of-service = cost`

Dependencies For this setting to apply, TOS and IP routing must be enabled in the `connection` profile, or TOS must be specified as the filter type in the `filter` profile.

Location `CONNECTION:ip-options:tos-options`
`FILTER:input-filters:tos-filter`
`FILTER:output-filters:tos-filter`

See Also `tos-filter`
`tos-options`

U

ubr

Description Enables or disables unspecified bit rate (UBR) traffic in this queue.

Usage Valid values are as follows:

- `yes`—Specifies that the queue supports ATM unspecified-bit-rate (UBR) traffic.
- `no`—Specifies that the queue does not support UBR traffic. This is the default.

For each queue, one or more ATM services categories can be set to `yes`. The ubr parameter must be set to `yes` for at least one and no more than two of the active queues assigned to a line interface module (LIM), control module, or trunk.

Example `set ubr = yes`

Location `SWITCH-CONFIG:atm-parameters:outgoing-queue`

See Also `cbr`
`real-time-vbr`

udp-cksum

Description Enables or disables UDP checksums. You might want to enable checksums if data integrity is of the highest concern for your environment, and having redundant checks is important. This setting is also appropriate if your UDP-based servers are located on the remote side of a WAN link that is prone to errors.

Usage Specify `yes` or `no`. The default is `yes`.

- `yes`—Enables UDP checksums. With this setting, the Stinger unit generates a checksum whenever it sends out a UDP packet.
- `no`—Disables checksums.

Example `set udp-cksum = yes`

Location `IP-GLOBAL`

udp-port

Description Specifies a UDP port number to use for a tunnel. Both ends of the tunnel must agree on the number.

- In an Ascend Tunnel Management Protocol (ATMP) Home Agent configuration, the setting identifies the port Foreign Agents must use to establish tunnels with the Home Agent.
- In an ATMP mobile-client profile, the setting specifies the UDP port expected by one or both of the ATMP Home Agents. If the mobile-client profile specifies a Home Agent IP address that includes a port number, the value overrides this parameter.

Usage Specify a UDP port number. The default is 5150.

Example `set udp-port = 5100`

Dependencies If you change the `udp-port` setting, the new value does not take effect until you reset the system.

Location `ATMP`
`CONNECTION:tunnel-options`

unavailable-second

Description Read-only. Indicates the number of 1-second intervals for which the HDSL2 line is unavailable. The HDSL2 line becomes unavailable at the onset of 10 contiguous severely errored seconds (SESs). Once unavailable, the HDSL2 line becomes available at the onset of 10 contiguous seconds with no SESs.

Usage The valid range for this read-only value is from 0 to 4294967295.

Example `unavailable-second = 0`

Location `HDSL2-STAT:physical-statistic`
`SHDSL-STAT:physical-statistic`

unavailable-secs

Description Read-only. Indicates the count of 1-second intervals, within the current 15-minute interval, during which the inverse multiplexing over ATM (IMA) group traffic state machine is unavailable.

Usage The valid range for this read-only parameter is from zero (0) to 2147483647.

Example `unavailable-secs = 56`

Location `IMA-GROUP-STAT:ima-group-statistic`

uncorrected-hec-error-count

Description Read-only. Number of uncorrected header check sequence (HCS) errors since the Stinger unit was last reset.

Usage The `uncorrected-hec-error-count` value is read-only.

Example `uncorrected-hec-error-count = 0`

Location `DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`

unit-type

Description Indicates or specifies, according to the profile, the operating mode of a symmetric digital subscriber line (SDSL) module.

Usage Valid values are as follows:

- In the `al-dmt-stat` and `sdsl-stat` profile, the `unit-type` parameter is read-only. It can have one of the following values:
  - `coe`—Central office equipment.
  - `cpe`—Customer premises equipment.
- In an `sdsl` profile, you must set the `unit-type` parameter to `coe`.

Example `set unit-type = cpe`

Location `AL-DMT-STAT:physical-status`
`SDSL:line-config`
`SDSL-STAT:physical-status`
`SHDSL:line-config`

unknown-cards

Description Specifies the action to take when the code image for newly supported modules is present in a tar file.

Usage Valid values are as follows:

- `auto`—Loads the code image if a module of that type is installed. Otherwise, The image is not loaded. This is the default.
- `load`—Loads the code image when one is present in the tar file.
- `skip`—Does not load the code image when one is present in the tar file.

Example `set unknown cards = auto`

Dependencies A module is considered present in the system if a Slot-Type profile exists for that module type. The system creates a Slot-Type profile when it first detects the presence of a module, and does not delete the profile unless the administrator uses the Slot –r command to permanently remove a module that is no longer installed in the system, or clears NVRAM. To ensure that the system does not load unnecessary images, use Slot –r to remove Slot-Type profiles for modules that are no longer installed in the system.

Location `LOAD-SELECT`

update-threshold

Description Specifies the update threshold on the Simple Network Time Protocol (SNTP) server, in seconds.

Usage Specify the number of seconds from zero (0) to 2147483647.

Example `set update-threshold = 10`

Dependencies This field is applied only if the `enabled` parameter in the `sntp-info` subprofile is set to `passive`.

Location `IP-GLOBAL:sntp-info`

update-time

Description Read-only. Indicates the absolute time at which this context was last updated.

Usage Read-only parameter with a numeric range of 0 to 4294967295.

Example `update-time = 123`

Location `REDUNDANCY-STATS:context-stats`

up-down-threshold

Description Specifies the number of times during the specified error-averaging period that a line is enabled and disabled by a modem before the modem is considered nonfunctional.

Usage The default value is 3 counts.

Example `up-down-threshold = 3`

Location `LIM-SPARING-CONFIG:auto-lim-sparing-config:lim-sparing-config[`*n*`]`

up-dwn-cntr

Description Read-only. Indicates the number of times the interface transitions from a DOWN state to an UP state.

Usage Read-only parameter with a value ranging from 0 to 4294967295.

Example up-dwn-cntr = 4

Location AL-DMT-STAT:physical-statistic
SDSL-STAT:physical-statistic
HDSL2-STAT:physical-statistic
IDSL-STAT:physical-statistic
SHDSL-STAT:physical-statistic

up-status

Description Read-only. Indicates the status of a device.

Usage The up-status parameter is read-only. Valid values are as follows:

- idle-up-status—Indicates that the device is not currently in use.
- reserved-up-status—Indicates that the device is not currently in use and should not be used until all idle devices of the same type are in use.
- assigned-up-status—Indicates that the device is in use.

Example up-status = idle-up-status

Location DEVICE-STATE

See Also device-address
device-state
reqd-state

upstream-end-bin

Description Specifies the ending frequency bin for upstream transmission.

Usage The valid range is 0 to 31 for 12- and 24-port line interface modules (LIMs) and 6 to 31 for 48-port LIMs. The default value is 31.

Example **set upstream-end-bin = 31**

Location AL-DMT

up-stream-latency

Description Read-only. Indicates the operational upstream latency.

Usage The up-stream-latency parameter is read-only. Valid values are as follows:

- none— Indicates that the line is not operational.
- fast— Indicates that the setting for the least up stream latency is in effect.
- interleave— Indicates that the interleave latency (greater than fast) is in effect.

Example up-stream-latency = fast

Location AL-DMT-STAT:physical-status

See Also down-stream-latency

up-stream-rate

Description Read-only. Indicates the upstream data rate for the symmetric digital subscriber line (SDSL) interface in bits per second.

Usage the `up-stream-rate` parameter is read-only. A value of 0 (zero) indicates that the data rate is unknown.

Example `up-stream-rate = 0`

Dependencies SDSL interfaces ensure maximum throughput for the particular condition of the line. The better the line quality, the higher the data rate.

Location `SDSL-STAT:physical-status`

up-stream-rate-fast

Description Read-only. Indicates the upstream data rate in bits per second when up stream latency has a value of fast.

Usage A value of 0 (zero) means that latency is set to interleave or the data rate is unknown.

Example `up-stream-rate-fast = 0`

Location `AL-DMT-STAT:physical-status`

See Also `down-stream-rate-interleave`
`down-stream-latency`
`up-stream-latency`
`up-stream-rate-interleave`

up-stream-rate-interleave

Description Read-only. Indicates the upstream data rate in bits per second when `up-stream-latency` has a value of `interleave`.

Usage A value of zero means that latency is set to fast or the data rate is unknown.

Example `up-stream-rate-interleave = 0`

Location `AL-DMT-STAT:physical-status`

upstream-start-bin

Description Specifies the starting frequency bin for upstream transmission.

Usage The valid range is 0 to 31 for 12-port and 24-port line interface modules (LIMs), and 6 to 31 for 48-port LIMs. The default value is 6.

Example **`set upstream-start-bin = 31`**

Location `AL-DMT`

See Also `downstream-end-bin`, `downstream-start-bin`, `gmt-offset`, `sntp` command

use-answer-for-all-defaults

Usage Specifies whether values in the Answer-Defaults profile override values in the default Internet profile when the Stinger unit uses RADIUS to validate an incoming call.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the Stinger unit uses the Answer-Defaults profile for defaults. When you specify `yes`, the Stinger unit falls back to the values specified in the Answer-Defaults profile for options that are not specified in a given external authentication profile.
- `no`—Specifies that the Stinger unit uses the default Internet profile for defaults. When you specify `no`, the Stinger unit uses defaults for options not specified in a given external authentication profile.

Example `set use-answer-for-all-defaults = no`

Location `ANSWER-DEFAULTS`

See Also `profiles-required`

used-count

Description Read-only. Indicates the number of times this device was used.

Usage Read-only numeric parameter with a range of 0 to 4294967295.

Example `used-count = 10`

Location `DEVICE-STATE`

use-exceeded-enabled

Description Specifies whether the system generates a trap (notification) when either a specific port has exceeded the number of DS0 minutes allocated to it or the system DS0 usage has been exceeded.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the system generates a trap when a specific port has exceeded the number of DS0 minutes allocated to it, or the system DS0 usage has been exceeded.
- `no`—Specifies that the system does not generate a trap when a specific port has exceeded the number of DS0 minutes allocated to it, or the system DS0 usage has been exceeded.

Example `set use-exceeded-enabled = no`

Location `TRAP`

See Also port-enabled

use-group-permissions

Description Enable/disable the user's access to all the allow-*xxx* settings in the user-group profile specified by the user-group parameter.

Usage Valid values are as follows:

- yes—Specifies that the user has access to all commands permitted by the allow-*xxx* setting in the user-group profile, and that the allow-*xxx* settings in the user profile are ignored.
- no (the default)—Specifies that the user does not have access to the commands permitted by the allow-*xxx* settings in the user-group profile, and that only the commands permitted by the allow-*xxx* settings in the user profile apply.

Example **set use-group-permissions = yes**

Location USER-GROUP

user

Description The user profile associated with the user who entered the command indicated in the cmd-log profile information parameter.

Usage This parameter is read-only.

Example user = admin

Location cmd-log

user-acct-expiration-date

Description Expiration date for this user account. Complex field.

Usage The following sample commands specify the expiration date for the user account remote:

```
admin> read user remote
USER/test read
admin> list user-acct-expiration-date
[in USER/remote:user-acct-expiration-date]
weekday = Monday
month = January
year = 1990
day = 1
admin> set month = December
admin> set year =2005
admin> set day = 31
admin> write -f
USER/remote written
```

Note The parameter weekday is not configurable.

Example user-acct-expiration-date = { Saturday November 2006 11 }

Location USER

user-group

Description Name of a user-group profile. The default is null. If the user-group parameter refers to a valid user-group profile, the access settings of the user-group profile are applied to the user session, overriding those in the user profile. If the user-group profile cannot be found, the user cannot log on or perform any commands. If no user-group profile is specified in the user profile, the access settings in the user profile apply.

Usage Specify the name of a valid user-group profile.

Example `set user-group = mygroupname`

Location USER

user-passwd-expiration-date

Description User password expiration date. Complex field.

Usage The following sample commands specify the expiration date for the password of the user account remote:

```
admin> read user remote
USER/test read
admin> list user-passwd-expiration-date
[in USER/remote:user-passwd-expiration-date]
weekday = Monday
month = January
year = 1990
day = 1
admin> set month = dec
admin> set year = 2003
admin> set day = 31
admin> write -f
USER/remote written
```

Note The parameter weekday is not configurable.

Example `user-passwd-expiration-date = { Sunday January 2004 11 }`

Location USER

user-profile

Description Specifies or indicates, according to the profile, a user profile name as follows:

- In the ip-global profile, user-profile specifies the name of the default user profile associated with Telnet sessions.
- In a serial profile, user-profile specifies the name of the default user profile associated with serial access to the Stinger command-line interface.

- In an `error` profile, `user-profile` indicates the name of the user that reset the unit.

Usage Valid values are as follows:

- In the `ip-global` or `serial` profile, specify the name of a `user` profile. Defaults are as follows. In either profile, a null value specifies that the user must log in explicitly.
  - For the `ip-global` profile, the default is null.
  - For the `serial` profile, the default is `admin`.
- In an `error` profile, the `user-profile` parameter is read-only.

Example `set user-profile = default`

Location `ERROR`
`IP-GLOBAL`
`SERIAL`

user-second-level-authentication

Description Enables/disables two-level user authentication for the different types of administrative access to a Stinger system.

Usage Specify one of the following the values:

- `none` (the default)—Second level authentication is disabled for the system.
- `console-only`—Second level authentication is enabled only for console access.
- `telnet-only`—Second level authentication is enabled only for console access.
- `modem-only`—Second level authentication is enabled only for modem access.
- `control-bus-only`: Second level authentication is required only for control-bus access (from a remote shelf to a host Stinger system).
- `console-modem-only`—Second level authentication is enabled for console and modem access.
- `console-telnet-only`—Second level authentication is enabled for console and telnet access.
- `telnet-modem-only`—Second level authentication is enabled only for telnet and modem access.
- `console-control-bus-only`—Second level authentication is required for console and control-bus access.
- `telnet-control-bus-only`—Second level authentication is required for telnet and control-bus access.
- `modem-control-bus-only`—Second level authentication is required for telnet and control-bus access.
- `console-telnet-modem-only`—Second level authentication is enabled for console,telnet, and modem access.
- `console-telnet-ctrl-bus-only`—Second level authentication is enabled for console, telnet and control-bus access.
- `console-modem-ctrl-bus-only`—Second level authentication is enabled for console, modem and control-bus access.

- `modem-telnet-ctrl-bus-only`—Second level authentication is enabled for modem, telnet, and control-bus access.
- `system-level`—Second level authentication is enabled system access.

Example `set user-second-level-authentication = telnet-only`

Location `SYSTEM`

userstat-format

Description Customizes the output of the `userstat` command.

Usage Specify a series of conversion strings. You can enter up to 72 characters. The maximum width of the output string depends on the width of the fields present in the session listing output. If you enter a character without a percent sign (%), it is printed as a literal character in the session-listing output. You can enter one or more of the following strings:

String	Field width	Output text	Meaning
`%i`	10	`SessionID`	Unique ID assigned to the session
`%l`	10	`Line/Chan`	Physical address (*shelf.slot.line/chan*)
`%s`	11	`Slot:Item`	*Shelf:slot:item/logical-item* of the host port
`%r`	11	`Tx/Rx Rate`	Transmit and receive rates
`%d`	3	`Svc`	A three-letter code showing the type of service
`%a`	15	`Address`	IP address
`%u`	14	`Username`	Connection profile name
`%c`	10	`ConnTime`	Amount of time connected, in *hours:minutes:seconds*
`%t`	10	`IdleTime`	Amount of time idle, in *hours:minutes:seconds*
`%n`	24	`Dialed#`	Number dialed if known

The default value of `userstat-format` causes the standard session-listing output format for the `userstat` command.

Example An administrator customizes the session-listing output to include only the `Username`, `Svc`, and `ConnTime` information, and enters an *at* sign (@) between the service and connection time for each session:

```
admin> read system
SYSTEM read

admin> set userstat-format = %u (%d) @ %c

admin> write
SYSTEM written

admin> userstat

Username        Svc    ConnTime
```

```
joeb          (TCP) @ 1:22:34
jimmyq        (TCP) @ 3:44:19
sallyg        (TCP) @ 5:12:56
<end user list>  3 active user(s)
```

Location SYSTEM

See Also `userstat` command

use-scroll-regions

Description Specifies whether the VT100 scroll-region commands are used to reduce screen redraws when the status screen is displayed.

Usage Valid values are as follows:

- `yes`—Specifies that the VT100 scroll-region commands are used to reduce screen redraws. This is the default.
- `no`—Specifies that the VT100 scroll-region commands is disabled. If the status screen is not redrawing properly, try setting Use-Scroll-Regions to no. This is the default.

Example `set use-scroll-regions = yes`

Location USER

See Also `bottom-status, default-status`

use-short-address

Description Enables or disables use of a shorter address format for system-generated ATM addresses.

Usage Valid values are as follows:

- `no` (the default)—Uses 20-byte addresses.
- `yes`—Uses addresses of fewer than 20 bytes.

Example `set use-short-address = yes`

Location ATM-PREFIX

use-trunk-groups

Description *Not used.*

Location SYSTEM

use-vp-switching-workaround

Description Enables or disables virtual path (VP)-switching from the line interface module (LIM) in this slot to a trunk.

Usage Valid values are as follows:

- `yes`—LIM-to-trunk virtual path connections are configured for connections originating from this slot.
- `no` (the default)—LIM-to-trunk virtual path connections are not configured for connections originating from this slot.

Example `set use-vp-switching-workaround = no`

Location `SLOT-STATIC-CONFIG/{ any-shelf any-slot N }`

See Also `need-max-vpswitching-vpis`

ustat-rsp-to-poll

Description Enables or disables sending of a USTAT message in response to a poll indicating an out-of-sequence protocol data unit (PDU).

Usage Select one of the following values:

- `yes`—Enables USTAT message for an out-of-sequence PDU.
- `no`—Disables USTAT message for an out-of-sequence PDU. This is the default.

Location `ATM-IF-SIG-PARAMS[n]:qsaal-options`

utopia-address

Description *For internal use only.*

Location `DS1-ATM-STAT`

V

v42/mnp

Description *Not used.*

validation-enable

Description Enables/disables validation, for Compact Remote shelves only. For the system to perform the ID comparison, validation must be enabled and `validation-id` must have a nonzero value.

Usage In the `system` profile, valid values are as follows:

- `yes`—Enables validation.
- `no` (the default)—Disables validation.

Usage In the `remote-shelf-config` profile, valid values are as follows:

- `system-defined`—Use the setting in the `system` profile to determine if validation is enabled for this shelf.
- `yes`—Enables validation.
- `no` (the default)—Disables validation.

Example `set validation-enable = system-defined`

Dependencies For the system to actually perform the ID comparison, validation must be enabled and `validation-id` in the `remote-shelf-config` profile must have a nonzero value.

Location `SYSTEM`
`REMOTE-SHELF-CONFIG:validation-config`

validation-id

Description A validation ID to compare against the DIP-switch setting of the Compact Remote shelf. With a zero value, the system does not perform validation. With a nonzero value, the system compares the value to the binary DIP-switch setting of the remote shelf. If the values do not match exactly, RLIM service in the remote shelf is disabled.

Usage Specify an integer from 0 to 255.

Example `set validation-id = 255`

Dependencies If you specify a nonzero value, it must be unique within the hosted system. If you specify an ID that is already specified for another shelf, the system refuses to write the profile.

Location `REMOTE-SHELF-STAT:validation-status`
`REMOTE-SHELF-CONFIG:validation-config`

validation-id-setting

Description The physical validation ID set by DIP switches on the remote shelf. This value is read from the remote shelf.

Usage This parameter is read-only. A valid value is an integer from 0 to 255.

Location `REMOTE-SHELF-STAT:validation-status`

valid-cell-counter

Description Read-only. Indicates the total number of valid cells received by the unit.

Usage The Valid-Cell-Counter value is read-only.

Example `valid-cell-counter = 0`

Location `OC3-ATM-STAT`

See Also idle-cell-counter

valid-entry

Description Enables or disables the filter specification. The system does not use a disabled filter specification when filtering a data stream.

Usage Specify yes or no. The default is no.

- yes—Enables the filter specification.
- no (the default)—Disables the specification.

Example **set valid-entry = yes**

Location FILTER:input-filters[*n*]
FILTER:output-filters[*n*]

valid-intervals

Description Read-only. Indicates the number of previous 15-minute intervals for which valid data was collected.

Usage The valid range for this read-only parameter is from 0 through 96. The value is 96 unless the inverse multiplexing over ATM (IMA) link was added to the IMA group within the last 24 hours, in which case the value is the number of complete 15-minute intervals since the link was added to an IMA group.

Example valid-intervals = 96

Location DS1-ATM-STAT:ima-link-status
IMA-GROUP-STAT

value

Description Specifies a hexadecimal number to be compared to the packet data identified by the offset, len, and mask calculations.

Usage Specify a hexadecimal number, up to 12 bytes long. After you have entered the number, the system enters a colon (:) at the byte boundaries.

Example **set value = aaaa0300000080f3**

Dependencies This setting applies only if the type parameter in the input-filter or output-filter subprofile is set to generic-filter.

Location FILTER:input-filters[*n*]:gen-filter
FILTER:output-filters[*n*]:gen-filter

vcc-ident

Description Read-only. Indicates a unique virtual channel connection (VCC) identifier, made up of the interface address (shelf, slot, and modem numbers), the virtual path identifier (VPI), and the virtual channel identifier (VCI).

Usage Read-only value.

Example `vcc-ident* = { shelf-1 slot-10 47 0 35 }`

Location `ATMVCC-STAT`

vcc-type

Description Read-only. Indicates the type of circuit.

Usage Read-only value with the following possible values:

- `connecting`—Point-to-point connecting. Always valid for an ATM circuit.
- `terminating`—Circuit is terminated.

Example `vcc-type = connecting`

Location `ATMVCC-STAT`

vcc-vci n

Description Read-only. Indicates an array of 16 virtual channel identifiers (VCIs) for virtual circuit connections (VCCs) in Asynchronous Transfer Mode (ATM).

Usage This is a read-only parameter.

Example `vcc-vci[1] = greenham`

Location `OC3-ATM-STAT`

vc-fault-management

Description *Not currently used.* Specifies the virtual circuit fault management type.

Usage Valid values are as follows:

- `none` (the default)— No fault management is performed on the virtual circuit.
- `segment loopback`—The system sends an operations, administration, and maintenance (OAM) F5 segment loopback cell to the remote device every 5 seconds.
- `end-to-end-loopback`—The system sends an OAM F5 end-to-end loopback cell to the remote device every 5 seconds.

Example `set vc-fault-management = none`

Location `CONNECTION` *`station:`*`atm-connect-options`

See Also oam-support
spvc-retry-limit
vc-max-loopback-cell-loss

vci

Description Specifies or indicates, according to the profile, the virtual channel identifier (VCI) for an Asynchronous Transfer Mode (ATM) link, as follows.

- In the atm-options subprofile, vci specifies the first side of the circuit.
- In the atm-connect-options subprofile, vci specifies the second side of the circuit.
- In the atmpvc-stat and atmvcc-stat profiles, the vci value is read-only.

Usage

- In an atm-options or atm-connect-options subprofile, specify a number from 1 to 32767.
- In the atmpvc-stat and atmvcc-stat profiles, the vci value is read-only.

Location CONNECTION:atm-options
CONNECTION:atm-connect-option
ATMPVC-STAT:vcc-members[*n*]
ATMPVC-STAT:vcc-members:vcc-members
ATMVCC-STAT:vcc-ident

See Also vpi

vc-max-loopback-cell-loss

Description *Not currently used.* Specifies the number of consecutive loopback cells that can be lost before the system clears the connection. When a permanent virtual circuit (PVC) is cleared, the interface is in an inactive state until the system can reestablish the connection.

Usage The default is 1.

Example `set vc-max-loopback-cell-loss = 1`

Location CONNECTION:atm-connect-options

See Also oam-support
spvc-retry-limit
vcc-vci

vc-oam4-support *N*

Description Enables/disables specific F4 segment and end-to-end OAM processing on a Stinger VC-switching VPI. *N* is the index value.

Usage Valid values are as follows:

- yes (the default)—F4 segment and end-to-end processing for the specified VC-switching VPI is enabled.

- `no`—F4 segment and end-to-end processing for the specified VC-switching VPI is disabled.

vc-switching-vpi[*n*]

Description An array listing up to 32 virtual path identifiers (VPIs), in addition to VPI 0, that the system uses for virtual channel (VC) switching.

Usage You can specify a VPI for each field in the array. The default is 0 (zero).

Example `set vc-switching-vpi 1 = 50`

Dependencies Consider the following:

- All VC-switching VPIs have a valid range specified by `vpi-vci-range`. All other VPIs are used for virtual path (VP) switching.
- Adding a VPI to a list of VC-switching VPIs causes the system to allocate more virtual channel connections (VCCs) for this port. You must make sure that the number of VCCs for other ports has been reduced to accommodate the increase in VCCs, because the system can support VCCs up to a limit of 32K on all trunk ports combined.

  For example, if `vpi-vci-range` is 4K, and VPI 0 is the only VPI allocated for VC switching for this port, then the port occupies 4K. If you add VPI 1 to the list of VPIs allocated for VC switching, a total of 8K is allocated for the port.
- Any change you make to a list of VPIs is effective immediately. To make the change, the system drops and reestablishes all connections.
- The total number of VPIs for VCCs cannot exceed 29 system wide.
- The Stinger controller's ATM application-specific integrated circuit (ASIC) supports up to 32,768 virtual connections across all trunk interfaces. If you specify additional VPI numbers to be used for VCCs, you must decrease the valid range of VCIs that can be assigned in combination with those VPIs.

  This requirement allows you to allocate VCCs efficiently across trunk interfaces while remaining within the limits of ASIC capacity.
- If a connection uses a VPI, the system does not allow you to delete that VPI while the connection is active. To delete a VPI that is assigned to active connections, you must put those connections out of service administratively by setting `active` to `no` in the `connection` profiles.

Location `DS3-ATM:line-config`
`E3-ATM:line-config`
`OC3-ATM:line-config`

vdsl

Description *Not supported.*

Location `LOAD-SELECT`

verify-remote-host-name

Description Enables or disables verification of the hostname returned by the Layer 2 Tunneling Protocol (L2TP) network server (LNS).

When enabled, the L2TP access concentrator (LAC) compares the hostname returned by the LNS in the Start-Control-Connection-Reply (SCCRP) packet to the `server-auth-id` value configured in the local `tunnel-server` profile or the `Tunnel-Server-Auth-ID` attribute in a RADIUS profile. If the values do not match, the LAC terminates the tunnel request.

Usage Specify `yes` or `no`. The default is `no`.

- `yes`—Enables verification of the hostname returned by the LNS.
- `no`—Does not perform hostname verification.

Example `set verify-remote-host-name = yes`

Location `L2-TUNNEL-GLOBAL:l2tp-config`

version

Description Indicates or specifies, according to the profile, one of the following:

- In the `error` profile, indicates the software version running when an error occurred.
- In the `imagroup` profile, specifies the inverse multiplexing over ATM (IMA) specification version.

Usage Valid values are as follows:

- In the `error` profile, an alphanumeric read-only parameter with up to 24 characters.
- In the `imagroup` profile, specify one of the following values:
  - `v1-0`—ATM Forum IMA version 1.0
  - `v1-1`—ATM Forum IMA version 1.1 This is the default value.

Example `set version = v1-0`

Location `ERROR`
`IMAGROUP`

view-name

Description Specifies the name of a view in a view-based access control model (VACM) that acts as the link between a `vacm-view-tree` profile and a `vacm-access` profile.

Usage Specify a string of up to 32 characters.

Example `set view-name = view1`

Location `VACM-VIEW-TREE:tree-properties`

view-tree-oid

Description Specifies the MIB object ID (OID) that represents the subtree for allowing or disallowing access in a view-based access control model (VACM).

Usage Specify up to 255 characters in dotted decimal format. The default is null.

Example `set view-tree-oid = 10.10.10.10`

Location `VACM-VIEW-TREE:tree-properties`

vj-header-prediction

Description Enables or disables Van Jacobson prediction for TCP packets on session requests using encapsulation protocols that support Van Jacobson (VJ) compression.

Usage Valid values are as follows:

- `yes` (the default)—Enables VJ compression for TCP packets.
- `no` —Disables VJ compression for TCP packets.

Example `set vj-header-prediction = no`

Location `ANSWER-DEFAULTS:ip-answer`
`CONNECTION:ip-options`

See Also `ip-answer`
`ip-options`

vlan-enabled

Description Enables or disables IEEE 802.1Q VLAN tagging on the virtual IP interface.

Usage Specify `yes` or `no`. The default is `no`.

Example `set vlan-enabled = yes`

Location `IP-INTERFACE`

vlan-id

Description Specifies the VLAN ID for the virtual interface or profile. The `vlan-id` value is the IEEE 802.1Q VLAN tag value added to the IP packets associated with the IP data stream.

Usage In the `ip-interface` profile, you can specify a number from 0 through 4095. To maintain full compatibility with IEEE 802.1Q, Lucent recommends that `vlan-id` values of 0, 1 and 4095 not be assigned.

In the `vlan-ethernet` profile, the `vlan-id` value is read-only. It is set when you specify the VID profile identifier in the `interface address, {{shelf, slot, port }VID}` when creating a specific `vlan-ethernet` profile.

Example `set vlan-id = 42`

Location IP-INTERFACE
VLAN-ETHERNET

voice-detection

Description Read-only. A numeric value indicating the result of a copper loop test (CLT).

Usage This read-only parameter has the following possible values:

- 1—Voice signal not detected.
- 2—Voice signal detected.
- 3—Steady state indicates possible data traffic.
- 4—Interrupted tone detected: 60 or 120 interruptions per minute (IPM).

Example `voice-detection = 1`

Location CLT-RESULT

vp-capability

Description Specifies whether a virtual private channel (VPC) can be established from the advertising node to the reachable address prefix.

Usage Select one of the following values:

- `true`—VPCs can be established.
- `false`—VPCs cannot be established. This is the default.

Example `set vp-capability = true`

Location PNNI-ROUTE-ADDR

vpi

Description Specifies or indicates, according to the profile, the virtual path identifier (VPI) for an Asynchronous Transfer Mode (ATM) link, as follows:

- In the `atm-options` subprofile, `vpi` specifies the first side of the circuit.
- In the `atm-connect-options` subprofile, `vpi` specifies the second side of the circuit.
- In the `outgoing-shaper` subprofile, `vpi` specifies the VPI of the path whose traffic is shaped.
- In the `atmpvc-stat` and `atmvcc-stat` profiles, the `vpi` value is read-only.

Usage Valid values are as follows:

- In an `atm-options` subprofile specify a number from 1 to 32767.
- In the `atm-connect-options` subprofile, specify a number from 0 to 255. The default is 0 (zero), which causes the unit to use virtual channel (VC) switching.
- In the `atmpvc-stat` and `atmvcc-stat` profiles, the `vpi` value is read-only.

Example `set vpi = 29`

Location CONNECTION:atm-options
CONNECTION:atm-connect-options
ATMPVC-STAT
ATMVCC-STAT
SWITCH-CONFIG:atm-parameters:outgoing-shaper

See Also `vci`

vpi-vci-range

Description Specifies a vrtual path identifier-virtual channel identifier (VPI-VCI) range.

Usage You can use the `vpi-vci-range` value to select the best combination of VPI and VCI bit sizes to fit the list of supported VPI-VCI pairs obtained from the network provider. The new values take effect as soon as you write the profile. Following are the possible values:

Value	VPI range	VCI range
VPI-0-255-VCI-32-255	0-255	32-255
VPI-0-255-VCI-32-511	0-255	32-511
VPI-0-255-VCI-32-1023	0-255	32-1023
VPI-0-255-VCI-32-2047	0-255	32-2047
VPI-0-255-VCI-32-4095	0-255	32-4095
VPI-0-255-VCI-32-8191	0-255	32-8191
VPI-0-255-VCI-32-16383	0-255	32-16383

Dependencies Consider the following

- Before setting the `vpi-vci-range` value, make sure that there is only one VC-switching VPI for the port, and that the rest of the trunk ports in the system use less than 16K for the virtual channel connection (VCC). The system can handle a maximum 32K VCC for all trunk ports combined.
- The VCI range is valid only for VPIs assigned for VC switching by the `vc-switching-vci` setting. VPI 0 is always used for the VCC. There are no restrictions on the VCI range for VPIs that use VP switching.
- Exercise caution when changing the value of `vpi-vci-range`. Any increase in the range requires the unit to reserve more VCCs for the port, and all VPIs assigned for VC switching reserve the range. Therefore, the VCC numbers for the port increase with the number of VPIs assigned for the VCC.
- To change the value of `vpi-vci-range`, you must set `active` to `no` to put all of the affected connections out of service administratively.

Location AL-DMT-STAT
ATM-INTERNAL-STAT
DS1-ATM-STAT

DS3-ATM:line-config
DS3-ATM-STAT
E3-ATM:line-config
E3-ATM-STAT
HDSL2-STAT
IMA-GROUP-STAT
OC3-ATM:line-config
OC3-ATM-STAT
SDSL-STAT
SHDSL-STAT
SLOT-STATIC-CONFIG

See Also vci
vpi

vp-switching

Description Enables or disables virtual path (VP) switching for the first side of the circuit.

Usage Valid values are as follows:

- yes—Enables virtual path switching for the first side of the circuit. If this parameter is set to yes, you must enable virtual path switching on both sides of the circuit and specify a valid virtual path identifier (VPI) number for each side.
- no (the default)—Disables virtual path switching for the first side of the circuit.

Example `set vp-switching = no`

Location CONNECTION

See Also vp-switching-vpi
vpi

vp-switching-vpi

Description Specifies the virtual path identifier (VPI) to be used for virtual path (VP) switching on the interface.

Usage Specify a VPI from 1 to 31. The default is 15.

Example `set vp-switching-vpi = 15`

Dependencies In the atm-internal profile, this setting applies only to ISDN digital subscriber line (IDSL) line interface modules (LIMs). It does not apply to the router modules.

On an ATM interface of an external module, the rest of the VPI values in the vpi-vci-range specification for the interface are used for virtual channel switching.

Location AL-DMT:line-config
AL-DMT-STAT
ATM-INTERNAL:line-config
ATM-INTERNAL-STAT

```
DS1-ATM:line-config
DS1-ATM-STAT
HDSL2:line-config
HDSL2-STAT
IMAGROUP
IMA-GROUP-STAT
SDSL:line-config
SDSL-STAT
SHDSL:line-config
SHDSL-STAT
```

vrouter

Description Specifies the name of a defined virtual router (VRouter). The effect varies by profile as follows:

- Specifying the VRouter name in a `connection` profile groups the WAN interfaces with the VRouter.
- Specifying the VRouter name in an `ip-interface` profile groups the LAN interfaces with the VRouter.
- Specifying the VRouter name in the `tunnel-options` subprofile defines the name of the VRouter to use for establishing a Layer 2 Tunneling Protocol (L2TP) tunnel.
- Specifying the name in an `ip-route` profile defines the name of the VRouter that owns the static route. The route will be part of the VRouter's routing table.

Usage Specify the name of a VRouter. The default is `null`, which specifies that the global VRouter is in use.

Example `set vrouter = vrouter2`

Dependencies Consider the following:

- L2TP tunnels can be built on specific VRouters. L2TP packets (control channel and encapsulated data) are sent by the configured VRouter for that tunnel. Because each VRouter maintains its own routing table and can detect only those interfaces that explicitly specify the same VRouter, this feature enables the system to separate traffic for different L2TP network server (LNS) systems.

  Note that a Stinger router module must dedicate one IP interface to each VRouter. In addition, the specified VRouter must reside on the L2TP access concentrator (LAC).
- You can use multiple VRouters with ATMP configurations by defining a VRouter in each `connection` profile.

Location `CONNECTION`

```
CONNECTION:tunnel-options
IP-INTERFACE
IP-ROUTE
```

vrouter-enabled

Description Read-only. Indicates the license status for the virtual router (VRouter) feature.

Usage Following are the valid values for this parameter:

- `yes`—The virtual router feature is enabled.
- `no`—The virtual router feature is disabled.

Dependencies This feature is available only on Stinger units equipped with a router module.

Location `BASE`

vrouter-ip-addr

Description Specifies the system IP address for the virtual router.

Usage Specify an IP address in dotted decimal notation. The default is 0.0.0.0.

Example `set vrouter-ip-addr = 200.40.60.5`

Location `VROUTER`

W

wan-line-state-change-enabled

Description Enables or disables trap (notification) generation if the state of an E1 or T1 line changes (Ascend trap 40). This trap sends the following information to the Simple Network Management Protocol (SNMP) manager:

- The T1 or E1 line interface index (`wanLineIfIndex`).
- The line usage (`wanLineUsage`). This usage is reported as `trunk`, `quiesced`, or `disabled`.
- The absolute time to show when the line state changed (`sysAbsoluteCurrentTime`).

Usage Valid values are as follows:

- `yes`—Enables trap generation if the state of an E1 or T1 line changes.
- `no` (the default)—Disables trap generation if the state of an E1 or T1 line changes.

Example `set wan-line-state-change-enabled = yes`

Location `TRAP`

warmstart-enabled

Description Specifies whether the Stinger unit generates a trap (notification) when the unit reinitializes itself in such a way that neither the configuration of the SNMP manager nor of the unit itself is altered.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the system generates a trap when the Stinger unit reinitializes itself so that neither the configuration of the SNMP manager nor of the system itself is altered.
- `no`—Specifies that the system does not generates a trap when the Stinger unit reinitializes itself so that neither the configuration of the SNMP manager nor of the system itself is altered.

Example `set warmstart-enabled = no`

Location `TRAP`

See Also `coldstart-enabled`

watchdog-name

Description Specifies an individual watchdog name.

An SNMP *watchdog* is a software routine that monitors the status of a particular aspect of a Stinger unit—for example, the temperature of a module.

Usage Specify up to 80 characters. The default is a system-defined standard name.

Example `set watchdog-name = tempModule1`

Location `WATCHDOG-CONFIG`

watchdog-trap-enable

Description Enables or disables the watchdog warning trap (notification) for the specified watchdog.

An SNMP *watchdog* is a software routine that monitors the status of a particular aspect of a Stinger unit—for example, the temperature of a module.

Usage Valid values are as follows:

- `yes` (the default)—Enables the watchdog warning trap.
- `no`—Disables the watchdog warning trap.

Example `set watchdog-trap-enable = no`

Location `WATCHDOG-CONFIG`

watchdog-type

Description Specifies the type of a watchdog.

An SNMP *watchdog* is a software routine that monitors the status of a particular aspect of a Stinger unit—for example, the temperature of a module.

Usage Valid values are as follows:

- `other`—Other type of watchdog.
- `thermal`
- `fan`
- `fantray`
- `relay`
- `cbus`

Example `set watchdog-type = relay`

Location `WATCHDOG-CONFIG:watchdog-index`

watchdog-warning-enabled

Description Specifies whether the SNMP watchdog-warning trap (notification) is enabled.

An SNMP *watchdog* is a software routine that monitors the status of a particular aspect of a Stinger unit—for example, the temperature of a module.

Usage Valid values are as follows:

- `yes` (the default)—Specifies that the SNMP watchdog-warning trap is enabled.
- `no`—Specifies that the SNMP watchdog-warning trap is disabled.

Example `set watchdog-warning-enabled = no`

Location `TRAP`

window-size

Description Specifies the size of the Q.SAAL window.

The signaling ATM adaptation layer (SAAL) provides reliable transport of q.2931 messages. Window size is typically related to an interval at which packets can be received or retransmitted. Standard algorithms are used to adjust window size according to network conditions.

Usage Valid values range from 16 to 128. The default value is 64.

Example `set window-size = 50`

Location `ATM-IF-SIG-PARAMS[`*n*`]:qsaal-options`

working-channel

Description Read-only. Indicates the physical address of the working channel in an automatic protection switching (APS) system.

Usage If a switch has occurred, this read-only parameter is set to the address of the channel being switched. Otherwise, it is set to the value { any-shelf any-slot 0 }.

Example working-channel = { shelf-1 trunk-module-1 1 }

Location APS-STAT

working-channel-signal-degrade-exponent

Description Specifies the signal degrade exponent for the working channel in automatic protection switching (APS).

Usage Specify a number from 5 through 9. The default is 6.

Example **set working-channel-signal-degrade-exponent = 7**

Location APS-CONFIG

working-channel-signal-failure-exponent

Description Specifies the signal failure exponent for the working channel in automatic protection switching (APS).

Usage Specify a number from 3 through 5. The default is 3.

Example **set working-channel-signal-failure-exponent = 4**

Location APS-CONFIG

write-access

Description Enables or disables write access to the SNMP agent in a Stinger unit for an SNMP manager on a remote host.

Usage Valid values are as follows:

- yes—Specifies that the SNMP agent allows write access in addition to read access.
- no (the default)—Specifies that the SNMP agent allows the SNMP manager only read access.

Example **set write-access = yes**

Dependencies For write-access to apply, active must be set to yes.

Location SNMP-MANAGER

write-access-hosts

Description An array that consists of up to five IP addresses of SNMP managers that have SNMP write permission. The Stinger unit responds to SNMP `Set`, `Get`, and `Get-Next` commands from only the SNMP managers you specify.

Usage Each element in the array can specify an IP address. With SNMP as the working profile, use the List command to display the array elements. For example:

```
admin> list write-access-hosts
[in SNMP:write-access-hosts]
write-access-hosts[1] = 0.0.0.0
write-access-hosts[2] = 0.0.0.0
write-access-hosts[3] = 0.0.0.0
write-access-hosts[4] = 0.0.0.0
write-access-hosts[5] = 0.0.0.0
```

You can then set a `write-access-hosts` value by specifying its numeric index and entering an address. For example:

```
admin> set 1 = 10.2.3.4/24
```

Or, you can set an array element without first listing the array. For example:

```
admin> set write-access-hosts 1 = 10.2.3.4/24
admin> set write-access-hosts 2 = 10.5.6.7/29
```

Dependencies For the `write-access-hosts` parameter to restrict read-write access to the Stinger unit, you must set `enforce-address-security` to `yes`.

Location `SNMP-MANAGER`

write-view-name

Description Specifies the name of a view for write access in a view-based access control model (VACM).

Usage Specify a name of up to 32 characters. If a request that matches the access-properties specified in this profile uses this name, read access is granted.

Example `set write-view-name = writeview1`

Location `VACM-ACCESS`

See Also `access-properties`

wtr-timer-duration

Description Specifies the protection group waiting time to revert (WTR) in tens of milliseconds.

Usage Specify a number from 0 through 4,294,967,295. The default is 3000.

Example `set wtr-timer-duration = 3500`

Dependencies The `wtr-timer-duration` parameter cannot be set when `revertive-mode` is set to `non-revertive`.

Location `APS-CONFIG`

X

xmit-delay

Description Specifies the estimated number of seconds required to transmit a Link State Update (LSU) packet over an Open Shortest Path First (OSPF) virtual link interface. Before transmission, link state advertisements (LSAs) contained in the LSU packet have their ages incremented by the amount you specify.

Usage Specify a number greater than `0` (zero). The value you specify must take into account transmission and propagation delays. The default is `1`.

Example `set xmit-delay = 8`

Location `OSPF-VIRTUAL-LINK`

Y

yellow-receive

Description Read-only. Indicates whether the local device has received a loss-of-frame (Yellow Alarm) indication. A Yellow Alarm indicates that a device on the line has detected framing errors in the signal.

Usage Valid values for this read-only setting are:

- `true`—Indicates that the local device has received a Yellow Alarm indication.
- `false`—Indicates that the local device has not received a Yellow Alarm indication.

Example `yellow-receive = false`

Location `DS1-ATM-STAT`
`DS3-ATM-STAT`
`E3-ATM-STAT`
`OC3-ATM-STAT`

See Also `ais-receive`

Progress and Disconnect Codes 4

Progress codes

Table 4-1 explains the progress codes.

Table 4-1. Progress codes

Code	Explanation
0	No progress.
1	Not applicable. A progress code 2 is a default values, literally indicating "unknown". The unit displays "2" for progress codes that have not yet been explicitly defined.
2	The progress of the call is unknown. -------- *Shortly after answering the call, the TAOS unit could not detect any signal from the computer's modem. Typically, the modems had marginal line quality. Because the TAOS unit's modem has a digital connection to its local CO, the poor line quality is between the user's modem and its local CO. Also, there might be an incompatibility between the modems.
40	The terminal-server session has started up.
41	The Stinger unit is establishing the TCP connection.
42	The Stinger unit is establishing the immediate Telnet connection.
43	The Stinger unit has established a raw TCP session with the host. This code does not imply that the user has logged into the host.

Table 4-1. Progress codes (Continued)

Code	Explanation
44	The Stinger unit has established an immediate Telnet connection with the host. This code does not imply that the user has logged into the host.
45	The Stinger unit is establishing an Rlogin session.
46	The Stinger unit has established an Rlogin session with the host. This code does not imply that the user has logged into the host.
47	Terminal-server authentication has begun.
60	The LAN session is up.
61	LCP negotiations are allowed.
62	CCP negotiations are allowed.
63	IPNCP negotiations are allowed.
65	LCP is in the open state.
66	CCP is in the open state.
67	IPNCP is in the open state.
68	BNCP is in the open state.
69	LCP is in the initial state.
70	LCP is in the starting state.
71	LCP is in the closed state.
72	LCP is in the stopped state.
73	LCP is in the closing state.
74	LCP is in the stopping state.
75	LCP is in the request sent state.
76	LCP is in the ACK received state.
77	LCP is in the ACK sent state.
82	BACP is being opened.
83	BACP is in an open state.
84	CBCP is being opened.
85	CBCP is in an open state.

Table 4-1. Progress codes (Continued)

Code	Explanation
90	The unit has accepted a V.110 call.
91	The V.110 call is in an open state.
92	The V.110 call is in a carrier state.
93	The V.110 call is in a reset state.
94	The V.110 call is in a closed state.
101	Authentication failed.
102	The remote authentication server timed out.

Disconnect codes

Table 4-2 explains the disconnect-cause codes.

Table 4-2. Disconnect codes

Code	Description
1	This value is not applied to any call.
2	The disconnect occurred for an unknown reason. A cause code 2 or Progress code 2 are default values, literally indicating "unknown". The unit displays "2" for disconnects and progresses that have not yet been explicitly defined.
3	The call was disconnected.
4	CLID authentication failed.
5	A RADIUS timeout occurred during authentication.
6	The Stinger unit is establishing the TCP connection.
7	The Pre-T310 Send Disc timer was triggered.
20	The user exited normally from the terminal server.
21	The terminal server timed out waiting for user input.
22	A forced disconnect occurred when the user exited a Telnet session.
23	No IP address was available when the user entered the SLIP command.

Table 4-2. Disconnect codes (Continued)

Code	Description
24	A forced disconnect occurred when the user exited a raw TCP session.
25	The user exceeded the limit for login attempts.
26	The unit attempted to start a raw TCP session, but raw TCP is disabled.
27	Control-C characters were received during the login.
28	The terminal-server session cleared ungracefully.
29	The user closed a terminal-server virtual connection normally.
30	The terminal-server virtual connection cleared ungracefully.
31	The user exited from an Rlogin session.
32	The establishment of the Rlogin session failed because of bad options.
33	The unit lacks the resources to process a terminal-server request.
35	The MP+ session cleared because no null MP packets were received. A unit sends (and should receive) null MP packets throughout an MP+ session.
40	LCP timed out waiting for a response.
41	LCP negotiations failed, probably because the user is configured to send passwords by means of PAP, and the unit is configured to accept passwords by means of CHAP (or vice versa).
42	PAP authentication failed.
43	CHAP authentication failed.
44	Authentication failed from a remote server.
45	The unit received a Terminate Request packet while LCP was in an open state.
46	The unit received a Close Request from an upper layer, indicating graceful LCP closure.
47	The unit cleared the call because no Network Core Protocols (NCPs) were successfully negotiated. Typically, there is no agreement on the type of routing or bridging that is supported for the session.

Table 4-2. Disconnect codes (Continued)

Code	Description
48	An MP session was disconnected. The unit accepted an added channel, but cannot determine to which call to add the new channel.
49	The unit disconnected an MP call because no more channels could be added.
50	Telnet or raw TCP session tables are full.
51	The unit has exhausted Telnet or raw TCP resources.
52	For a Telnet or raw TCP session, the IP address is invalid.
53	The unit cannot resolve the host name for a Telnet or raw TCP session.
54	For a Telnet or raw TCP session, the unit received a bad or missing port number.
60	For a Telnet or raw TCP session, the host was reset.
61	For a Telnet or raw TCP session, the connection was refused.
62	For a Telnet or raw TCP session, the connection timed out.
63	For a Telnet or raw TCP session, the connection was closed by a foreign host.
64	For a Telnet or raw TCP session, the network was unreachable.
65	For a Telnet or raw TCP session, the host was unreachable.
66	For a Telnet or raw TCP session, the network admin was unreachable.
67	For a Telnet or raw TCP session, the host admin was unreachable.
68	For a Telnet or raw TCP session, the port was unreachable.
100	The session timed out.
101	The user name was invalid.
115	The dial-in user is no longer active.
120	A requested protocol is disabled or unsupported.
150	A disconnect was requested by the RADIUS server.
151	The call was disconnected by the local administrator.

Table 4-2. Disconnect codes (Continued)

Code	Description
152	The call was disconnected by means of SNMP.
160	The unit exceeded the maximum number of V.110 retries.
170	A timeout occurred while the unit waited for the remote device to be authenticated.
181	The call was cleared by the system.
185	The signal was lost from remote end, probably because the remote end's modem was turned off.
190	The resource has been quiesced.
195	The maximum duration for the call has been reached.
201	The unit has low memory.
230	The unit deleted the Virtual Router (VRouter).
240	The unit disconnected the call on the basis of LQM measurements.
241	The unit cleared a backup call.